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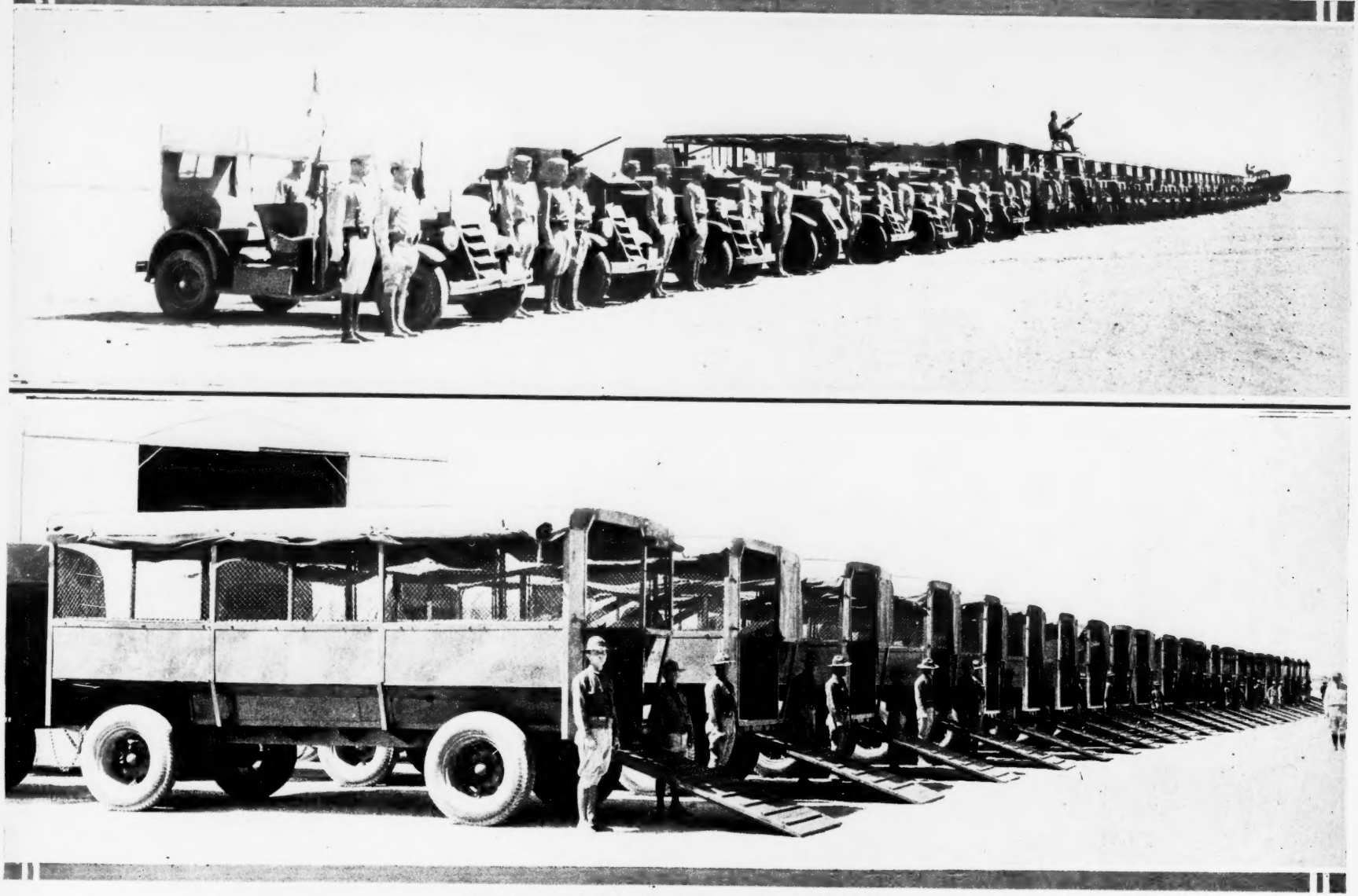


THE 1ST CAVALRY DIVISION'S FLYING SQUADRON

Above: Armored Cars Armed With .30 Caliber and .30 Caliber Machine guns. Trucks and Trailers Very Efficient; Converted Class B's; Can Carry 200 Horses With Forage, Rations and Men For Long Journey, All Self-Sustained. Below: Trailers With Ramps Down. Ramps Serve as Back Door.

Cavalry in Future War

By Colonel George Grunert, Cavalry

TO ENVISAGE cavalry of the future involves a study of its past, a knowledge of the trend of its present development and a picture of its role in future warfare.

It is not my aim to justify the continued existence of horse cavalry nor to advance arguments for or against mechanized cavalry. Both have their powers and limitations, and I am firmly convinced that the future will afford ample opportunity for the employment of both, singly or in combination.

What Is Cavalry?

To most laymen the term means "horse cavalry," while to the initiated it means "mounted troops possessing great mobility, varying degrees of dismounted firepower, and varying degrees of ability and tradition in the use of its mounts and weapons in mounted action." In the past, cavalry of European nations was developed for mounted action, depending principally upon shock in the employment of the horse, saber and lance, and had but little dismounted firepower. Our cavalry depended primarily upon its heavy dismounted firepower. Since the World War the trend of development is toward greater dismounted firepower without loss of mobility. Mechanization has added a new type of mount and the extent to which cavalry will become mechanized depends upon the extent to which machines can be utilized in the performance of cavalry missions. Thus, we may see that the term cavalry applies more to missions than to mounts and denotes mounted troops possessing great mobility, heavy dismounted firepower and ability to wage mounted combat under favorable conditions.

Summary of Cavalry History Prior to World War

2400 years ago, Philip of Macedon laid down principles that apply to warfare today; find your enemy, fix him, disrupt and demoralize him, and then annihilate him. His tactics were simple. The infantry Phalanx engaged and held the enemy, whilst the cavalry suppressed all resistance. Prior to his time, the tactical organization of military troops was based on the nature of the country rather than on any idea of weapon cooperation or the combined use of the various arms.

Philip's tactics were proved out and developed by his son, Alexander the Great. Under him cavalry became *the* decisive arm, and we find it so employed through succeeding centuries by such great leaders as Hannibal, Scipio, Gustavus Adolphus, Marlborough, Frederick the Great, Seydlitz, and Napoleon. At times its growth and progress were temporarily interrupted by its attempts to carry protective armour to withstand the improved bow and cross-bow, by the introduction of bombards and by the improvement in infantry and artillery weapons and tactics.

After the Napoleonic wars the development of small arms and artillery affected adversely the mounted assault of large bodies of cavalry against unshaken infantry, unless surprise was possible. The trend was shown in our Civil War, which introduced to the world what the Europeans called "mounted infantry," on account of its fire power; it was, however, real cavalry, modernized to meet changing conditions.

The cavalry lessons of this war should have prevented the disasters of the Austrian-Prussian War of 1866 and of the Franco-Prussian War of 1870-71.

In the years immediately preceding the World War, only the United States and Great Britain appear to have realized that the mobile fire power of the breech-loading rifle had now given the cavalry an effective arm of protection and thus extended its field of activity. French and German cavalry training was devoted mainly to reconnaissance duties and mounted action. Neither nation had fully realized the limitations imposed by the breech-loading rifle and the machine gun upon the possibilities of mounted assault against a dismounted enemy nor had recognized that, unless surprise and a short distance to cover were obtainable, he had first to be disorganized and demoralized by fire.

Cavalry During the World War

Mobile troops have great opportunities in the opening phase of any war. The consensus of opinion is that cavalry might have been more profitably employed by both sides on the Western Front prior to, and during, the Battle of the Marne.

Both Germany and France employed ten cavalry divisions without decisive results. The Germans placed five of their divisions in their center and left where there were no flanks and the country was unfavorable for cavalry action. Except in covering the concentration they were ineffective and soon became intermingled with foot troops. The remaining five were employed with their offensive right wing where there was an open flank and where the proper employment of all ten divisions might have changed the result of the whole campaign, but the faulty distribution of these five divisions and their subsequent poor tactics and lack of fire power caused them to miss many opportunities that might have contributed to decisive results, and on the whole their operations were ineffective. The expected inter-cavalry struggle never came about and after the failure of two of their divisions to over-run the Belgians at Haelen they seldom again attempted mounted assaults. At Le Cateau three divisions engaged in dismounted frontal assaults against the British II Corps thus sacrificing their mobility and failing to discover the Corps' exposed flanks and isolated position.

ABOVE: Armored Cars Armed with .30 Caliber Machine Guns. Trucks and Trailers Very Efficient, Converted Class B's, Can Carry 2,000 Rounds and Men For Long Journey, All Self-Sustained. Below: Trailers With Ramps Down. Ramps Serve as Back Door.

The initial disposition of the French cavalry was equally faulty. Only three divisions were placed on the exposed flank, where the terrain favored cavalry action, and these divisions soon became exhausted in the execution of minor, ineffective missions. The remaining seven divisions were distributed to armies operating on fronts where there were no flanks and where the terrain was not suited to mounted action. Not having been trained in dismounted action, they were ineffective and their mounted attacks, which they attempted regardless of the terrain and against unshaken opponents, proved futile and costly.

The British cavalry, having been trained for both mounted and dismounted action and having considerable dismounted fire power, was more effective, as was shown in their gallant and successful covering of the British advance to and withdrawal from Mons.

All three combatants utilized divisional cavalry and found it of great value.

Now as to questions. First take the German side.

1. Knowing the topography of the country, knowing that German cavalry had been trained to consider mounted action as its primary role; knowing that the main effort of the offensive was to be undertaken by the right wing; knowing that the main forces should be concentrated opposite the key point where the decision was to be sought; and knowing the difficulty of moving large masses of cavalry across Army areas: was the bulk of the German Cavalry concentrated in the proper area?

2. Knowing the foregoing and in addition thereto that Corps and Divisions had organic cavalry of its own (an average of 8 squadrons to a corps), was it necessary to attach cavalry divisions to armies of the center and the left wing?

3. Was not the initial concentration of the cavalry faulty?

4. Does it not appear logical to have concentrated the entire independent cavalry in the zone of the right wing (First, Second and Third Armies) and then to have employed it under one commander?

5. Could not such a cavalry mass with the available Jager battalions and cyclist companies and possibly some mobile long-range artillery have been employed as follows:

a. To cut the Belgians off from Antwerp? The available weak 2d German Cavalry Division couldn't do it.

b. By extension well to the right, to have struck the British Army at Mons in flank and rear and made its effect felt to the rear of the Fifth French Army?

c. For extended pursuit and to have made the stand of the Allied forces short of the river Seine impossible and jeopardized their stands on the Aisne and the Marne?

d. To have ridden around Paris and raided the S. O. S.?

e. To have kept the Sixth French Army from entering the Battle of the Marne? Only one weak cavalry division was available to attempt this.

Even the necessity of utilizing 4 cavalry divisions to fill the gap between the First and Second German Armies would have left 6 divisions to strike the Sixth French Army in flank.

6. Does it not appear as though the German High Command failed to employ its cavalry to the best advantage and frittered away its strength and substance?

Now let us take the Allied side.

1. Was its cavalry properly concentrated strategically?

2. Was it properly employed?

3. With a proper knowledge of the terrain, the training of its cavalry, the principles governing concentrations, etc., should the French cavalry have been parceled out to the various armies? French corps and divisions had ample organic cavalry (6 squadrons per corps).

4. Would it not have been possible for the French after they were convinced that the Germans were coming in force through Belgium, to have massed the bulk of their independent cavalry northeast of the line Antwerp-Lille and attacked the German right flank?

5. Again, in preparation to resume the offensive could not the Allies have created a mass of French and British cavalry in the vicinity of Compiegne and, in conjunction with the attack of the Sixth French Army, have overrun the Landwehr and S. O. S. troops of the First German Army and continued on in the direction of Reims?

Now, in place of horse cavalry, substitute mechanized cavalry, or a combination of horse and mechanized cavalry, in the picture, and you can understand why I believe that cavalry has a most alluring future.

If space permitted I would picture to you similar examples of faulty concentration and employment of cavalry during the frontier battles on the Eastern Front and point out to you wherein the high command failed to make use of the terrain; failed to appreciate the powers of cavalry masses, when disposed opposite the point where a decision was sought; and frittered away cavalry strength by detachments to slow moving commands where cavalry lost its mobility and performed missions of divisional and corps cavalry, thus losing grand opportunities of a decisive nature.

On the other hand, I invite your study of the 1916 Roumanian Campaign, of the latter stages of the campaigns in Palestine and Mesopotamia, and of the Battle of Vittorio-Veneto; where you will find excellent examples of proper high command direction of cavalry and excellent leadership in the field.

The Trend of Cavalry Development Since the World War

The aftermath of the World War brought forth various opinions on the future of cavalry, but we find that, without exception, all the great leaders have expressed their confidence in the future of cavalry in no uncertain terms.

All nations having come to the conclusion that cavalry is not obsolete and realizing that its future missions will demand greater fire power, have sought to increase its fire power without a sacrifice of mobility. Some have added to the armament carried on

the horse, while others have provided additional fire power by means of accompanying mobile vehicles.

With the improvement in the cross-country maneuverability of the light tank, in the speed and dependability of the armored car and the progress made in perfecting a cross-country carrier, the leading nations, to varying degrees, have either incorporated them in their cavalry, or are experimenting with mechanized forces for ultimate use in conjunction with cavalry.

Again we see history repeating itself in an attempt by mounted forces to protect themselves from the increased dismounted fire power and we must guard against the loss of mobility through too great a desire for protection.

Of the leading nations of the world only Great Britain and France have conducted and are continuing to conduct extensive experiments in motorization and mechanization.

Some of Great Britain's tank enthusiasts brought on extensive experiments in mechanization, and for a time they predicted the abolition of horse cavalry and foot infantry and envisaged huge land fleets of heavy tanks followed by infantry in lorries and by self-propelled cross-country artillery and supported by light tank and armored car cavalry. Experiments, experience and expense brought them to a saner view, so now they have but 2 regiments of armored car cavalry and envisage the future of mechanization in the terms of light armored brigades working with the cavalry and medium armored brigades working with the infantry.

The French are now experimenting with mixed motorized and horse units. Their future program includes the motorization of certain cavalry regiments and of supporting arms, then the organization of a mechanized combat unit, and ultimately the mechanization of five cavalry divisions. The expense of their experiments and the rapid obsolescence of their vehicles may bring a downward revision of this ambitious program.

In our Army one cavalry regiment is being converted into a mechanized regiment, and the program calls for the mechanization of a second regiment with the object of eventually forming a mechanized brigade. However, at an initial cost of $1,500,000.00 to mechanize a cavalry regiment, it is highly probable that our cavalry mechanization will be limited to that brigade for some time to come.

Our Cavalry carries with it, without loss of mobility, more actual fire power than does the cavalry of any other nation. France, the greatest advocate of fire power of all foreign nations, supplements the fire power of its horse cavalry by that of its *Dragons Portés*, but the combined fire power of its horse cavalry plus its *Dragons Portés* falls short of that of the American horse cavalry. Further, we carry 1,048 rifles per regiment to their 931 carbines per regiment.

Great Britain is the only other nation whose cavalry is armed with the rifle. The cavalry of other nations is armed with the carbine.

The United States and France, in their desire to give their cavalry the greatest fire power it can carry, or have transported for use with it, are seeking to

equip cavalry personnel with semi-automatic shoulder weapons. For the United States, this appears to be its next step in keeping ahead of the cavalry of other nations.

From the foregoing we see that the trend of cavalry development has been towards increased fire power, motorization and mechanization; all with the view to greater mobility and ability to protect itself and hold its own with the fire power and shock it may be subjected to.

From what we have seen there is every reason to conclude that cavalry of the future will be of two types—horse and mechanized, and that all the larger echelons of horse cavalry will have their motorized supply columns and a proportion of armored cars. Differences of opinion exist as to mixed formations of horse and mechanized cavalry and as to the eventual size of strictly mechanized cavalry formations.

Cavalry in Future Wars

1. The foregoing brief view of the present trend in the development of cavalry gives us an outline for our picture of its future. However, before coming to a conclusion as to cavalry in future wars, let us consider its powers and limitations and, by an analysis of its role, determine the kind of cavalry that would stand the best chance of successfully accomplishing its missions.

There is no need of my going into the powers and limitations of horse cavalry. History is replete with examples. On the other hand, a concise exposition of the powers and limitations of mechanized cavalry may assist us in keeping our feet on the ground, when we consider its future development and figure on its future employment. Let us carefully calculate future risks and not allow the imponderables to unduly sway our judgment, at least until we have exhaustively surveyed the field of ponderables.

Mobility, fire power and shock have ever been our cavalry's watchwords. Modern warfare demands of the cavalry increased mobility, increased fire power and shock action under favorable conditions. Our cavalry has greatly increased its fire power, without impairment of its mobility, but its shock action is now limited to its smaller formations. Mechanized cavalry should make for increased mobility and firepower and to a limited extent restore shock action. However, mere speed is not mobility, and no matter how rapidly a force may be able to arrive on the scene of action, it is of little value if it cannot maneuver and sustain itself.

The proposed mechanized cavalry regiment, consisting of a headquarters and a headquarters troop, a covering squadron (1 Armored Car troop and 1 Scout troop), a Combat Car squadron (2 Combat Car troops), and a Machine Gun troop, is a powerful organization with its 6 1.85 guns, its 155 cal. .30 machine guns, its 53 cal. .50 machine guns, and its 198 rifles.

Armored car squadrons are separate and distinct organizations. They consist of a headquarters and three troops. Each troop has three platoons, each of which consists of 4 armored cars (each with a cal. .30 machine gun) and 1 cross-country car.

The favorable and unfavorable characteristics of armored and combat cars may be summed up as follows:

Favorable—Mobility, fire power, invulnerability, morale effect, and for combat cars—shock.

Unfavorable—Limited observation, easily discovered, draw fire, weight, breakdowns, fatigue of crews, difficulty of control (combat cars), and restricted mobility of armored cars, if wheeled.

To the unfavorable characteristics of both these classes of vehicles and applicable to mechanized units as a whole, the following may be added:

Length of road columns, difficulty of concealment and lack of suitable cover make them particularly vulnerable to air attacks.

A recent German invention of a small caliber armor piercing bullet with a tremendous increase in muzzle velocity, may demand thicker armor and more weight in future mechanized vehicles.

The physical discomfort, fatigue and lack of vision react on crews and tend to make them timid.

The close support of armed men will usually be necessary to extend the field of action of mechanized vehicles, on account of the accidents of terrain and enemy obstacles, and to consolidate positions, mop up and exploit their successes.

Further, there will be restrictions due to mechanical and supply difficulties. Machines will be immobilized on account of breakdowns, accidents and lack of fuel, and their ability to "push on smartly" will have definite limitations, regardless of the morale of their crews or the determination of leaders.

Mechanized vehicles are complicated machines of special manufacture, with no commercial application. Their procurement will be slow and costly, and the spare parts supply a problem. Due to the rapid obsolescence of this costly equipment, peace-time assembly of large quantities thereof cannot be depended upon.

Considering these limitations: i.e., restricted tactical application, need for close ground support, and lack of mechanical ruggedness and dependability, precludes the organization of large units, wholly mechanized for the execution of independent missions or for the playing of separate combat roles.

Mechanized cavalry can supplement but not supplant horse cavalry.

Now let us consider the employment of cavalry and determine what kind of cavalry is best suited therefor.

We must always consider the cavalry of our possible enemies, its composition, organization and armament and, in connection therewith, the probable theaters of operations. Picture to yourself the difficult terrain in our own theaters: limited road nets, extensive wooded, watered and mountainous areas, sand, mud, etc. Then size up the theaters outside our borders and determine the kind of cavalry best suited to successfully accomplish cavalry missions. I have no doubt that you will arrive at the same conclusion that I reached, viz., that, with but few exceptions, these

theaters favor the employment of horse cavalry, supplemented by mechanized cavalry.

Generally, what are the missions of cavalry?

Now, as in the past, they are:

Before Battle:

Long-distance strategical reconnaissance.

Covering mobilization and concentration.

Interrupting enemy's mobilization and concentration.

Fighting for control of the theater of reconnaissance.

Seizing points of strategical and tactical importance.

Screening the advance of our own forces.

Delaying the enemy's advance.

Tactical reconnaissance.

During Battle:

Cooperation in battle.

Continued tactical reconnaissance.

As an exploitation force, to take advantage of any break or weakened part in the hostile battle line.

As a strategical or tactical reserve.

After Battle:

Exploitation and pursuit.

Cover a withdrawal.

Continued tactical reconnaissance.

Maintenance of contact with the enemy.

Generally, cavalry is employed as divisional, corps, and army cavalry.

Divisional cavalry should be attached only when and where needed, and then only in such formations as are absolutely necessary. In the past it was considered wasteful of cavalry strength to include a portion in the organic set-up of infantry divisions, although most foreign divisions included a squadron (corresponding to our troop) or more in their war organization, and their present peace organizations continue to include cavalry. The future will undoubtedly demand more active close-in reconnaissance to prevent surprise attacks by highly mobile forces, hence the increased necessity for divisional cavalry.

A squadron of horse cavalry, equipped with semi-automatic shoulder rifles, a platoon of machine guns and armed with weapons for defense against armored cars and light tanks, would seem most suitable as divisional cavalry to perform the required missions of close-in detailed reconnaissance and security, and at the same time constitute a mobile reserve for emergency use in closing small gaps, etc.

Mechanized cavalry is unable to properly comb the divisional zone because of the usually limited road net, and such use thereof would be a waste of its mobility and fire power.

Corps cavalry in its missions must cover a wider and deeper area; there is less need for a detailed reconnaissance of difficult terrain; and there usually is a better road net available. Further, it ofttimes must remain out of contact with supporting troops for a day or more. Hence, mechanized cavalry would appear to be more suitable than horse cavalry.

Army Cavalry. Most nations are now in accord with the view that the bulk of the cavalry should be kept together in independent mobile formations and that infantry corps and divisions should be given only so much cavalry as they absolutely need for their purposes.

Army cavalry should be organized into division and corps. Only strong formations can meet the operative problems connected with reconnaissance, security and actions against enemy flanks and rear.

The assignment of cavalry formations to armies should be predicated on a careful study of the terrain over which an army is to operate and its mission in the entire force employed.

In no other arm of the service does the error of splitting up a force manifest itself so much as in Army cavalry. The distribution everywhere of small cavalry formations gives up the initiative and from the start makes cavalry action dependent upon the enemy's action.

When cavalry corps are organized, the necessary auxiliaries for the performance of the missions assigned must be attached. These practically always include additional artillery and at times infantry in trucks. Every cavalry corps needs a motorized train.

Whether horse or mechanized cavalry or a combination thereof will be used depends primarily upon the terrain over which it is to operate and the availability of each.

Command and Leadership

Just a word as to the responsibility of high commands and staffs, which have so much to do with the success or failure of cavalry.

History is replete with examples of the misuse of cavalry; of a lack of understanding of its role and how to properly employ it, usually resulting in its distribution to subordinate commands; of its employment over unsuitable terrain or upon missions which can have no decisive results or which place it where it cannot later be used when badly needed; of the exhaustion of cavalry on minor missions, without a realization of its limitations; and of the failure to give it definite tasks and to keep it informed so that it may intelligently employ its means.

Commanders and staffs who fail to study their cavalry as they do their infantry and artillery, who fail to employ it to perform its allotted role, who fail to conserve its power for the opportune moment, and who fail to give it definite instructions; lose the value of one of the means furnished them with which to wage successful battle.

Now to summarize my conclusions as to cavalry in future wars.

As to our own country, I visualize our future cavalry as both horse and mechanized. At the outset, horse cavalry will predominate, and our mechanized cavalry undoubtedly will be limited to a single organized brigade, in addition to which there will be available a limited number of armored car units towards the project of furnishing each cavalry division with an armored car squadron.

Should funds be appropriated for more extensive cavalry mechanization, I would favor the organization of additional mechanized cavalry regiments at the rate of one for each cavalry division, not as an organic part of the division but available in GHQ reserve for attachment when and where needed. As such regiments become available, I would eliminate the tank company, now an organic part of the cavalry divisional organization. When not employed with cavalry divisions or cavalry corps, such regiments could be organized into mechanized cavalry brigades for employment independently, or in conjunction with horse cavalry formations.

The kind of cavalry that would be organized in any expansion of the cavalry arm, subsequent to our initial mobilization, depends upon the character of the terrain in the theater or theaters of operations. In 4 out of 5 of the most probable theaters, the demand for horse cavalry would predominate, and the proportion of horse to mechanized cavalry regiments would be at least 4 to 1.

There again, our cavalry expansion to a large extent may have to be governed by the kind and amount of cavalry which our enemy or enemies may put into the field.

Horse cavalry can be organized and trained more quickly than can mechanized cavalry.

Should we find a demand for mechanized cavalry that cannot be met by what we shall have or can produce by the time needed, we would be forced to substitute improvised motorized cavalry.

I am unable to visualize wholly mechanized or motorized armies on any future battlefields.

The employment of mechanized units and the extensive employment of armored cars in future warfare will make it necessary to provide infantry corps and divisions with adequate reconnaissance and security detachments, capable of operating at a greater distance from their main bodies than in the past. Thus the demand for divisional and corps cavalry will be insistent. When such cavalry is furnished, it is believed that a squadron of horse cavalry, with a platoon of machine guns and a platoon of antitank weapons, would most satisfactorily serve a division and that, as corps cavalry, a mechanized cavalry regiment (when available) or a horse cavalry regiment, with an armored car troop attached, would be most appropriate.

Where Army cavalry can be properly employed and the mission of the Army favors its employment, one or more cavalry divisions should be attached. The composition of such divisions to be substantially the same as now provided for, except when available and when its proper employment can be foreseen, a mechanized regiment should be attached. When the Army cavalry missions require the employment of two or more cavalry divisions on the same mission or in the same locality, a cavalry corps should be organized.

At each Army headquarters there should be a small cavalry staff which normally would look after the cavalry with the Army, conserve its strength and make plans for its most profitable future employment. At all times this staff should be ready to expand and function as a Cavalry Corps Staff in the event a cavalry corps is formed. If the command of such a Cavalry Corps is given to one of the Army cavalry division commanders, he should be physically separated from his division and not be permitted to occupy the dual position as a corps and a division commander. In organizing such a corps from cavalry divisions to which mechanized cavalry regiments are attached, the terrain or the mission of the corps might make it advisable to detach the mechanized regiments from the divisions and organize them into a mechanized brigade, or a separate mechanized brigade might be attached to the corps from GHQ reserve.

Similarly at GHQ, to whose reserve the bulk of the cavalry pertains until its most advantageous employment can be determined, there should be an organized cavalry staff available for assignment to a cavalry corps or a cavalry army, when large cavalry formations are to be employed independently, or are attached to other large formations. To command such large cavalry formations a major general should be available at GHQ.

The organization of such staffs at army and general headquarters would give commanders concerned the assistance so badly needed in conserving cavalry strength, keeping it well posted, in giving it adequate and definite instructions, and in planning ahead for its most profitable employment.

Cavalry missions have not changed, nor do I foresee any change in the future. The means at the cavalry's disposal for the accomplishment of such missions have changed and are subject to future changes. Greater mobility (limited at times by the terrain and road nets), a large increase in fire power, and the combat car as a shock weapon, have given the cavalry added means with which to accomplish its missions.

The terrain and, at times, the necessity for speed will govern the kind of cavalry to be employed. However, as a rule the best results will be obtained by the judicious employment of combined horse and mechanized cavalry in such formations as the magnitude of the task demands.

The Employment of the Light Machine Gun

By Captain Thomas J. Heavey, Second Cavalry

IN the January-February, 1933, issue of the CAVALRY JOURNAL, there appeared an article on the Light Machine Gun that invites discussion.

In warfare between armies equipped with small arms, the successful combatant has discovered that he won the decision, in most cases, for the reason that he was able to deliver a greater number of effective bullets at the crisis of the attack than this opponent. Military scientists dress up this simple thought by talking about "fire superiority."

History furnishes excellent examples of armies with better weapons suffering defeat. But the better weapon and *its proper employment* give the less efficiently equipped opponent a very slim chance of success, if we can discount the intangibles of morale, leadership and mere luck or chance.

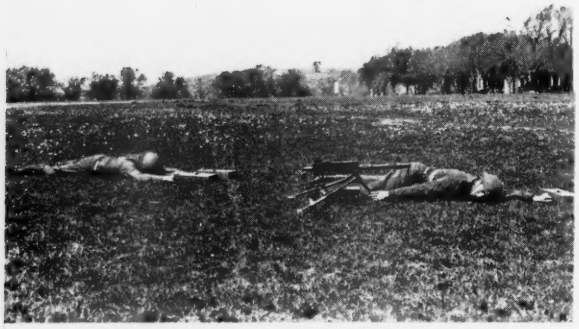
To deliver a certain number of bullets per minute on an objective, we must have x weapons firing y bullets per minute. It is clear that, if the number of weapons is decreased, the rate of fire must be stepped up accordingly. All armies have been interested in decreasing the number of weapons and increasing the rate of fire. This has unquestionable advantages but unfortunately, if carried to extremes, meets an *impasse*. A given number of soldiers can transport only so much dead weight in weapons and ammunition therefor. Eventually, there must be a reasonable compromise between the weapon and its ammunition supply. In any case, to obtain the most efficient return from the compromise, there is a best way *to employ the particular weapon.*

All modern armies are agreed upon the desirability of a light quick-firing weapon within the smallest integral unit both for attack and defense. The tank machine gun was in existence in this country in sufficient numbers to equip the cavalry. It was comparatively light and seemed to meet many requirements of the ideal weapon. The Tables of Organization prescribe how many light machine guns a cavalry regiment shall have; they further prescribe where they are and how they are organized. Within the rifle troop they are grouped in a separate platoon for administrative and drill purposes. In action they normally accompany rifle squads. The new weapon replaces the machine rifle.

The light machine gun is intended for use with the firing line. Sometimes a comparison brings out a point emphatically; here is one that may give the reader a mental picture of the gun's tactical employment. Mr. Smith, residing in Toonerville, received unexpectedly a large fortune as a bequest from a relative. He had always wished to climb mountains in Europe and welcomed the opportunity now afforded by his newly acquired wealth. As for equipment, he found two items in particular to be invaluable, a good stout pick mattock and a tough rope. The pick had to be light enough to be carried with ease but still must never break; same with rope. At first he found these implements

Left: **Normal Method of Moving Gun in Dismounted Man euver. Gun Not Unloaded, Immediately Available for Fire.**
Right: Assault Fire.

a nuisance to carry and very awkward to use. But he improved with practice and soon had great confidence in the pick and the rope. When the going was easy, he used the pick as a walking stick and carried the rope coiled around his shoulder. When it got fairly bad, he would reach up ahead, drive the pick in solidly and pull himself up from that support. When it was real tough going, he used the rope to hook on to the pick and hauled himself along. Later he joined a party, and picks plus ropes got them all nicely. The strange part of his progress was that he *learned no rules* but just used initiative and common sense in employing the two items of equipment he depended upon.



Top: The Approach March. Center: Method of Moving Gun and Ammunition to Take Advantage of All Cover. Bottom: Method of Moving Gun in High Weeds, Brush, etc. (Greasewood Like That on the Border).

This fable covers the proper employment of the light machine gun in a fairly thorough manner. The pick is the gun; the rope is what the military scientists calls "liaison." Mr. Smith and his equipment are you and I and the cavalry platoon. An attack is directed on an objective. We get there by using the light machine gun as a roving peg to drive in and pull ourselves up with it *and* the rope. If the pick does not hold when we pull, we shift it over till it gets a good hold, in other words we move it to a better position. And we maneuver, taking all possible advantage of cover and get there with the minimum expenditure of effort (casualties). If the rope breaks, Mr. Smith will probably need a new seat in the old trousers. The same remark applies to Lieutenant B, platoon leader. Have your guns in proper condition and your gunners properly trained beforehand.

With Mr. Smith's party, the tougher the going, the more picks were stuck in before the advance continued. So with our cavalry in larger units. Maneuver forward, as the difficulty of advance increases, must be assisted by fire of more guns, constantly.

Unquestionably, the light machine gun is properly placed when it is with the firing line. It is an assisting weapon, *not* a supporting weapon. The grouping of guns as a separate platoon is only for administrative and drill purposes. Habitually in any action in which they may be used, they belong with the squads. With our present organization this permits two guns per platoon. Normally they go with flank squads, and our squad leaders are trained to use them properly. In an advance they follow the scouts as closely as possible, take advantage of all possible cover, husband their ammunition, maneuver as the terrain demands and actually function as the *primary* weapon of the dismounted attack.

As to any other method of employing the guns, remember Mr. Smith. When a higher commander takes the guns away from the rifle squads and platoons, the responsibility is his. Take away from the platoon leader the principal means of accomplishing the mission, and you leave him as helpless as Mr. Smith's party would be without their picks.

The article upon which I am commenting refers to comparative values of machine rifle and light machine gun. It is averred that the machine rifle was highly mobile, and at the same time nearly all available cover could be taken advantage of. Admitted, but does not the same remark apply equally to the light machine gun? And may I bring out one or two points further? The machine rifle with biped and stock rest weighs 24 pounds, the light machine gun on the later type tripods from 43 to 38 pounds. But the machine rifle is fed with 20-round clips, that weigh one pound and ten ounces full, and eight ounces empty. If our machine rifle gunner and assistant use 900 rounds in a scrap, they carry 45 clips each weigh

ing one-half pound, plus the weight of the ammunition itself, (54 pounds and 14 ounces), or 77 pounds and 14 ounces. The total weight to move is then 101 pounds, 14 ounces. The same crew using a light machine gun will carry 38 pounds, gun and mount (naturally I take the lighter tripod for the comparison) and but 56 pounds 6 ounces of ammunition in belts, a total of 84 pounds, 6 ounces. How can the machine rifle be very much more "highly mobile?" It is longer, has the bipod hanging on front, and the stock rest dangling in rear, gets just as hot or hotter, and the two men must move considerably more weight, whereas the light machine gun is all in one piece with the mount and can certainly take advantage of cover, if there is any. It gets hot, but only a moron will insist on grabbing the hot barrel jacket. The front leg of the tripod may be grasped, the tripod being mounted, and the whole mount and gun dragged forward, if it is desired to take advantage of cover. Or if carried in a standing position, the same front leg grasped in the left hand, the right hand on the traversing bar, always furnishes a "cool" grasp. For a long advance, the gunner may place the whole tripod and gun on his back, the front leg resting over either shoulder, and get along with comfort. Or two men may carry the mount, one by the front leg, the other by the two rear legs.

The question of the height of the mount is open to very candid discussion. No data are available on how many times out of 100 actions the prone position will not be habitual, in using this weapon. Personally, I believe that it will be unusual to encounter terrain where this is absolutely prohibited. But even so, if this situation is encountered, I venture that as frequently as not such a condition will be a *tremendous advantage*. Written words as to what may be done with this gun on the type mounts developed for it since we have received it do not carry much weight. However, it was my privilege to deliver fire on ten silhouettes at Fort Bliss some months ago with this weapon, in the presence of the officers of the Division, the targets being so located that they were visible from the gun position only when the gunner was kneeling. The gun was fired in its normal position, for a duration of 60 seconds, fire *directed* by an observer near the gun, the gunner manipulating the elevating and traversing mechanism as directed by the observer. All targets received two or more hits. In place of light high grass obscuring these targets, fire was delivered through the greasewood bushes so prevalent in this locality, frequently reaching four feet in height. The "enemy" could not possibly have located the gun. I have no confidence in my own personal ability to hit anything with a machine rifle, if I am forced to stand and rest the muzzle on a bush or tree. Nor have I any great confidence in delivering any accurate fire in a sitting position, with a machine rifle. But I have the utmost confidence in the capabilities of the light machine gun delivering effective fire at any range, when fired as indicated above. In place of the personal equation of each individual firer entering the probability of obtaining hits on sitting or standing positions with the machine rifle, we contend only with the degree of training of the observer. It takes very little training for the man of average intelligence to adjust fire of the light machine gun accurately at any range on a target that cannot be seen by the gunner. The present elevating gears are not perfect. They are modified from existing materiel, and the click assembly thereof gives a four mil change

Top: Normal Prone Position of Gunner, "Command" Limited to Height of Gunner's Eye. Center: Free Gun, "Command" About 18 to 20 Inches. Bottom: Firing with Assistance.

of elevation approximately. These elevating gears can, and no doubt will be, further modified to incorporate a mil click. Such firing, using "indirect methods," on certain types of terrain, is admittedly impossible without the use of some tracer ammunition. But I certainly anticipate that it will be within the realm of possibilities to have some tracer.

A possible assistance to this problem of the low mounting is also furnished in the existence of ammunition chests that will be, with certainly reasonable certainty, at the gun position. The front leg may be propped up on an ammunition chest, increasing the height of command materially, and the gun fired by use of the sights, using single shot fire, with satisfactory results. Height of command, when the terrain calls for it, may be further artificially increased by having the assistant gunner hold the tripod head on his right knee, left hand securely holding down the front leg, and the gunner fire with the sights, single shot fire.

There is also no sound reason against placing the whole gun and mount in a suitable low shrub or possibly a tree, if this made to order support happens to exist. And my personal opinion is that it is a far easier task to do this with the light machine gun than with the machine rifle.

Experiments are being conducted locally in the incorporation of an extension front leg for the tripod. It is not my position to state the advisability of such a device, but it appears to me that it is merely a question for higher authority to decide. It means additional weight, that may *occasionally* be of advantage. But there is a practical limit to incorporating improvements on a mount for this gun.

To go on further with the machine rifle. It is averred that the majority of jams were easily reduced, and broken parts few. Does not this apply to the light machine gun as well? I have personally fired over 8,000 rounds of ammunition with a light machine gun in one afternoon and encountered one malfunction. Machine rifle jams, in my opinion, were to a great extent due to damaged clips. They are light, fragile, and do not stand the wear and tear of pack transportation well. And they collect sand and grit very efficiently. Whereas the light machine gun, if we ever use it in combat, will be fed belts that are freshly taken from sealed containers, already loaded at the arsenals. Is this an advantage over clips?

It is averred that the machine rifle's ability to sustain fire is good. At the Cavalry School, this has not been verified, and it is probable that more sustained fire has been fired here than anywhere else in the Cavalry. I witnessed one particular firing of the machine rifle, when the gun ceased functioning entirely, in spite of attempts to adjust the gas port, after 300 rounds fired full automatic as rapidly as possible. I have fired over 750 rounds continuous fire with the light machine gun, and the gun still was functioning mechanically. And I have seen several thousand rounds fired at rates from 60 to 100 rounds a minute with no malfunction of the gun. In other words, to be candid, there is no comparison between the sustained fire ability of the two weapons. The light machine gun, changing barrels at the proper times, can continue to fire indefinitely. No gas-operated weapon can be expected to do this.

As to accuracy, again there is no comparison. The accuracy of the machine rifle is dependent upon the personal equation of the firer. When the trigger is pulled, the mechanism crashes forward, and in spite of the bipod and stock rest, the aim is disturbed to some degree. A good gunner will neutralize this to a great extent by assuming the proper firing position, when prone. But he cannot neutralize it sitting, kneeling or offhand. He can make allowances for this jump of the gun, but it takes a good man to estimate uniformly the jump. Whereas the light gun, particularly when fired single shot fire, due to being mounted on a stable mount, and the only moving part being a little firing pin springing forward upon the release of the sear, for all practical purposes completely neutralizes the personal equation of the gunner. In automatic fire, the light machine gun has proved to be as accurate, if not more accurate, than any other similar weapon fired here. With the machine rifle, automatic fire, except when delivered on a suitable target, is very inefficient. The writer submitted an article to the CAVALRY JOURNAL last year* summarizing the results of comparative firing of the light machine gun and the machine rifle, in a series of combat problems. This firing was done by the 2d Cavalry, during their field firing training, at the conclusion of the target season. The results were overwhelmingly in favor of the light machine gun. There is no possible argument here.

Coming to the summary of the previous article on this subject, three "plans," all involving a complete change of organization, a complete revision of tactics of our Cavalry, are submitted.

Plan one suggests a tripod of higher command, and all light guns organized into independent troops within the squadron, the line troops to retain their machine rifles. I have mentioned the higher tripod. May I refer to operations report submitted to GHQ Chaumont in 1918. Col. X was detailed to observe and report on the attack of the....Div., in the offensive of...., 1918. This is on file in the Department of Weapons. Col. X apparently was an enthusiastic machine gunner. He reports that all machine guns were in position on time and executed the prescribed fires as ordered. But that after the jump off (and he apparently was in the right place to see what he reported), no machine guns were noted in position or firing, at any time *thereafter*. A number of guns were observed going into action well in advance of the jump off, but in every case observed, *the guns were neutralized by hostile fire prior to firing a single shot*. Why? The answer—they were using tripods with high command. The Boche had learned his lesson very well by this time. A machine gun located in an attack is a machine gun lost, when the enemy is alert.

As to an additional machine gun troop within the

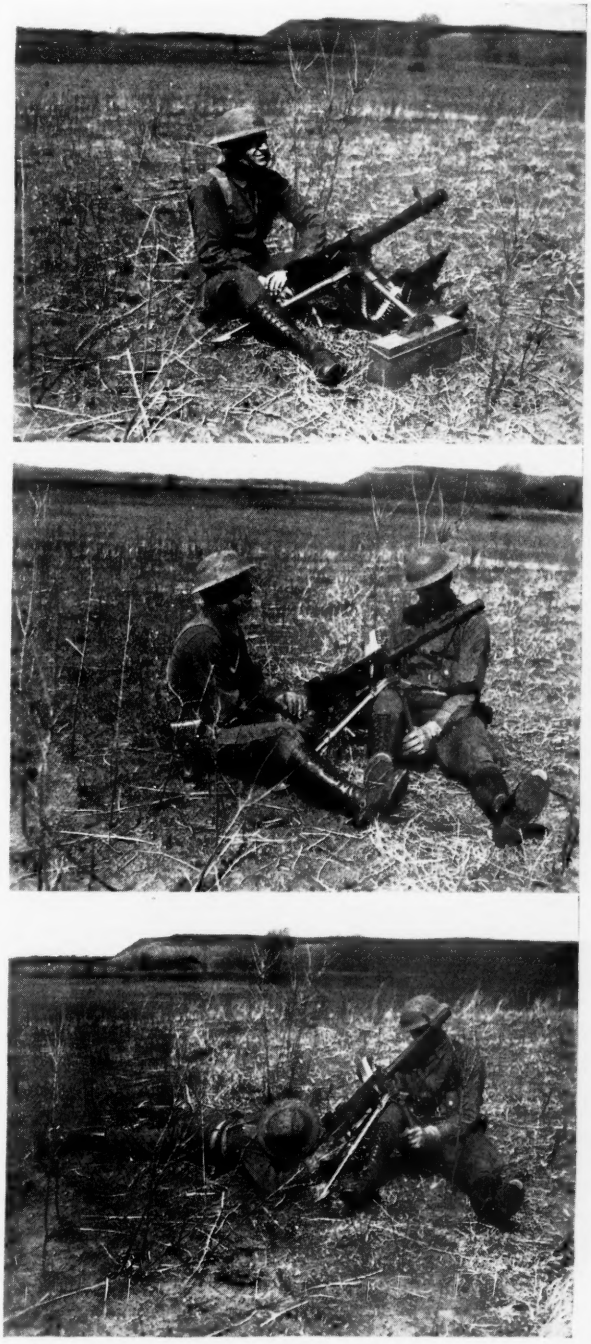
*Appeared in the July-August, 1932, issue.

squadron, are we not loading up Mr. Smith's party with lots of pick mattocks—but forgetting the rope? And where do we want the heavy machine guns, and why? There is a false idea prevalent as to what this light machine gun is. The sobriquet, machine gun, to a "technical expert" (which I do not pretend to be), so I have been told, infers that the weapon is capable of *accurate,* long range sustained fire. The light gun is not in actuality a machine gun. It is not capable of the *degree* of sustained fire demanded for a heavy machine gun. The gun will function for a considerable length of time, at high rates of fire, but inherent with any air-cooled weapon, excessive heating of the barrel results in erratic fire. If this gun were on such a type tripod as suggested, there would be great temptation to many to consider it as a *supporting* weapon. This infers overhead fire, long range work, and incidentally with such missions, long periods of fire. It is not suitable for such missions. It may deliver overhead fire, within reasonable limits, as at present mounted. And without any further complications of the mount, may be so positioned as to get reasonable command, delivering accurate and effective fire as a free mount, employing single shot fire. It is needed in the firing line. It is far superior to the machine rifle as an accompanying weapon on such a mission. It is where it belongs now.

Plan two suggests arming each trooper with a suitable automatic rifle and organizing the light machine guns separately. This has some merits, in theory, but let's keep both feet on the ground. Such a weapon as is dreamed of here is possible to produce, but do not overlook the practical side of the question. Too many such rifles mean ammunition paucity, to begin with. There must be a limit somewhere. And if we get such a weapon, we have no further need of the light guns. This organization might function with automatic rifles in numbers limited to the ammunition demand, and heavy water-cooled guns as supporting weapons. But this means scrapping too much useful war materiel now on hand—and economic conditions preclude this. It may eventually occur, but not soon enough to cause any great excitement. Such a scheme is for study of higher commanders. Our job just at present is to use what we have to the greatest advantage.

Plan three suggests the adoption of the light machine gun in place of the machine rifle, but mounting it on a higher tripod, so as not to reduce its "field of fire" to its present state, and attach the guns to the rifle platoon. Part of this plan seems to have already been prescribed by proper authority, some time since. As to the higher tripod, let us not forget Col. X's report.

Antiaircraft fire is unfortunately one of the phases of Cavalry action on which we must theorize to a great extent. But I am in possession of one set of *facts* that seem to confirm that our theories are not all incorrect. Recently in the disturbance in Cuba, the revolutionists downed four of nine attacking planes, in a much heralded attack by the Federal army aviation. How well trained the revolutionists were in this phase of warfare can be but a surmise. But there is no surmise as to the planes being out of the picture. Our doctrines are simple, workable, and if ever put to the test will certainly accomplish something. In the latest School pamphlets on this subject appears a very trite and direct statement. It is: "The best means available for Cavalry for defense against hostile attack



Top: Gunner Fires Continuous Fire, Using Tracer Control. Center: Higher Elevation Obtained by Assistant Gunner Holding Tripod. Continuous Fire, Tracer Control. Bottom: Antiaircraft Fire Using Sights.

aviation is the maximum concentration of the fire of all available weapons." The light machine gun, as at present packed and mounted may be mounted for antiaircraft fire very quickly. The effectiveness of such fire is primarily a function of the state of training of the gun crews. Test firing at towed targets at the Cavalry School has indicated that, even with very limited training, this fire is effective. Considerable time, study, experiment, test and practical firing will be devoted to this phase of training in the future, and the effectiveness of such fire will no doubt increase as experience is gained. If four planes out of nine attacking a comparatively untrained group have been knocked down by fire from ground troops, it does not appear to be a sound doctrine to give up our tactics of meeting attack with attack. "Dispersion," as ordinarily thought of, precludes any fire. It further means delay, confusion, loss of control, and can easily result in even demoralization. It is by no means an assured method of reducing casualties, in fact as often as not will furnish the attacking planes with a more favorable target. Present attack aviation doctrines contemplate attacks in flights of three planes coming in toward the target so as to enfilade it. Planes will strive to execute a shallow dive as they approach the target, dropping from an elevation of 200 feet to not less than 100 feet, firing as they dive, so as to rake the target from head to tail, and bombing as they pass over. A narrow target, such as a column, unless the planes come on in column, will not be as good a target as a dispersed unit. If the planes come in column, they are themselves in their most vulnerable formation for suffering casualties from ground fire. Dispersion should be only to such a distance as to permit use of weapons. It may be three yards to 20 yards, that is, the dismounted men clearing the column this much.

The light machine gun as at present mounted and packed may be placed in action for antiaircraft fire very rapidly from pack. Test firings have indicated that antiaircraft fire with these guns is effective, at least on towed targets. As with any type firing, the degree of effectiveness is a function of the state of training of the gun crews. But it is not essential to fire at towed targets to train gun crews. Training regulations on this type of preliminary training have been prepared at the Cavalry School for all weapons of the Cavalry. Completion of the preliminary firing therein prescribed has indicated by test that the light machine gunner is reasonably well trained. No ornate installation of equipment is necessary.

Several methods of mounting the gun may be used in such firing. The tripod may be elevated on an ammunition box, the elevating gear released, the gun used as a "free" gun. If tracer ammunition be available, the gunner then sits down behind the gun and adjusts his fire by delivering continuous fire, manipulating the gun so as to place the cone of fire on the target. Greater elevations may be obtained by supporting the tripod on the assistant gunner's knee. In case tracer ammunition is not available, the gunner must refer to sights. Antiaircraft sights are adaptable to the gun, but in their absence the gun is directed as the rifleman fires, namely by maintaining a linear lead, of the prescribed number of target lengths ahead of the target. This requires that the gunner be prone, and is not an ideal solution as there is only a portion of the flight of the target where fire may be so delivered. However, a reasonable percentage of hits have been obtained in such firings at the Cavalry School. With the great number of these weapons within the Cavalry regiment, there is no doubt that such a concentration of fire as is possible will be effective.

The question of ammunition expenditure is not the bugbear it may seem. The duration of an attack is very brief, probably less than thirty seconds. It is not possible to deliver any too great an amount of fire, if our doctrines are correct. The possibility, or probability, of repeated attacks is remote, particularly if each attack is met with our own vicious fire attack. Ammunition so expended is well invested.

There is one item in comparing our present weapon with the machine rifle that I would like to include, and that is the effectiveness of the light machine gun in firing on rapidly moving ground targets. The machine rifleman is here at a tremendous difficulty. If he fires semi-automatic fire, the movement of his body in scrambling around to follow the target precludes any fast rate of fire. If he uses the stock rest, it is just so much more difficulty to overcome. If he fires full automatic fire, he hits all over the landscape. But the light gunner may manipulate his gun smoothly, and if he is trained to use the same principles of firing *continuous* fire, maintaining the laying of the gun by the use of sights a "linear lead" ahead of the target, the target certainly is in a tough spot. Again a few rounds of tracer are a tremendous assistance. In the firing done by the 2d Cavalry referred to above, in four problems involving the fire on moving targets, the ratio of hits was 4.8 to 1 in favor of the light machine gun. At this time, the gunner was an experienced machine rifleman but had never previously fired the light machine gun. Since then I have seen courses of fire on targets moving at speeds of 20 to 30 miles per hour at ranges of 600 to 350 yards, with over 40% hits obtained, the light gun being handled as I described. This day and age, this one characteristic alone would make the light gun far preferable to the clip fed, slowly manipulated machine rifle.

In conclusion, let us not repeat deliberately the mistakes of the past in attempting to fit the tactics of old to our new weapon. With all due respect to the individual rifleman, it is high time we realize that he will sooner or later have to drop to the subsidiary position of escort to the automatic weapon. This is our mainstay particularly in the small units in attack or defense. And if our higher commander sees fit to borrow our picks, remember it is his responsibility. Let us thank our stars we are lucky enough to have the most efficient weapon of its type in existence. It is just that, and our mission is to educate ourselves up to its acpabilities.

Reserve Officer Active Duty Training

By Major Edwin O'Connor, Cavalry, Unit Instructor, 312th Cavalry

IN PLANNING the active duty training of reserve officers during their fourteen day periods, there are several vital considerations which enter into the problem. One of the more important of these has been that of providing for the individual officer a progressive practical training. While the military art may be involved with a high degree of theoretical knowledge, the application is essentially a very practical matter; thus, the efficacy of training rests largely upon its practicality. A reserve officer may attain a satisfactory degree of theoretical knowledge of the subjects pertinent to his arm and grade pursuing the appropriate extension courses, but this gives him no practical experience in applying this knowledge, so that it falls to his periods of active duty training to give him the very maximum of application.

In visualizing the training period of a reserve cavalry regiment immediately after mobilization, one of the first problems confronting the colonel would be the availability of qualified instructors for the various subjects pertinent to his arm. He would note that many of his officers had completed the extension courses of the Cavalry School and that many had received a considerable number of periods of active duty training. But he would have no means of knowing who were especially qualified to instruct in specific subjects.

As a matter of fact he would probably find that practically all of his officers have a smattering of knowledge of all the subjects but that none have a thorough knowledge of any one subject even to the extent of being qualified to instruct soundly.

There is noted, in the schedules of training for the past ten years at various camps, a good deal of sameness in the instruction covered; that the trainee is subjected year after year to a little dab of training in this and that and in most cases seldom advances beyond the rudiments in any one subject. Thus, in tactics, he has probably worked out an advance guard problem each year—and more frequently than not as an observer, due to the lack of troops; or with the machine gun, he has probably observed some firing, or may even have pulled the trigger for a few bursts, but knows nothing of the practical duties and difficulties of the machine gun officer or those of his subordinates. Similarly with the rest of the subjects of his arm.

In each group of officers attending a camp few will have any uniform degree of training or preparation: some will require the very basic rudiments, and others will be in varying degree prepared for advancement in their training. Thus the schedule is usually prepared to benefit those with the least advancement, with the result that the others are called on for undesirable repetition, when there is so much to learn.

A solution to the above problem—both as to progress in training from year to year and as to the qualification of individuals in the practical training in specific subjects—is presented in the following plan.

Each reserve officer will be provided with a Qualification Card to be kept with his records. Thereon will be listed all the practical subjects of training (and only pertaining to practical work) appropriate to his arm and grade, or next higher grade. Thus, some of the practical subjects of the Cavalry Officer would be: Minor tactics, communications, musketry, machine gun (light and heavy), pistol, saber, rifle, care of animals and shoeing, mess management, etc., etc. The requirements for qualification in each of these subjects to be specified in detail, preferably by the Chief of Branch. This to assure that the subjects be covered in a uniformly comprehensive way. It might be well to include on this card a reference to the degree of qualification attained; i. e., a statement that the trainee is qualified to conduct the training of his troop or platoon in this particular subject or that he has shown such aptitude as to especially qualify him for a regimental instructor.

When the reserve officer reports at camp with the designated regiment he does not participate in the general schedule of training prepared for the beginner and lightly touching on all subjects pertaining to his branch training but he will participate in a practical school prepared in a specific subject and his two weeks training will be devoted almost entirely to that subject, which might be termed his "major" subject for that year's training. The training in this subject will be designed to meet the requirements, as specified, for that subject and would normally result in his qualification in that subject with the appropriate notation on his "Qualification Card."

Thus, the commanding officer of the Nth Cavalry has been directed to receive for training for two weeks fifty reserve officers. It will not be attempted to prepare a general schedule for all of these officers regardless of preparation; but the Commanding officer of this regiment will, in coordination with the Unit Instructor of the reserve unit, as to the needs, organize within his regiment the necessary schools in the required subjects. The number of schools to be increased so as not to require too large a number of reserve officers to attend the school in one subject—say not to exceed eight officers. The keynote of the instruction to be practical work: to learn by doing. The Colonel utilizes the facilities of his regiment in organizing these schools: the Commanding officer of his machine gun troop prepares and conducts the school for machine gun officers; the commanding officer of Troop A conducts schools for other weapons; the commanding officer of Troop B conducts a school in musketry;

the commanding officer, Troop E, conducts a school in minor tactics; the commanding officer, Hq. Troop, conducts a school in communications; each using his own troop for the purpose. A squadron commander might be designated to conduct a tactical school for the field officers. It would probably appear desirable to conduct certain training as a group, such as calisthenics, an hour's equitation in the morning, a ceremony in the late afternoon, and a two or three days' march with maneuvers at the end of camp.

At the end of camp Lt. John Doe would be able to say to himself: "I now have a definite practical working knowledge of musketry." Colonel Blank, commanding the 3—th Cavalry, would be able to say: "I now have officers who have a fair grounding in specific cavalry subjects, and they will be of great value to me in case of mobilization to help instruct my regiment." Captain A, Commanding Troop A, Nth Cavalry, would be able to say: "My troop now knows more about minor tactics than they did before." The Colonel of the Nth Cavalry would not be wrong in assuming that the training of his regiment had been advanced rather than retarded.

The theory that reserve officers go to training with a regular regiment and receive a considerable experience in command functions is impractical (under present conditions) and largely a fiction. This theory was no doubt an underlying principle in the scheme of training reserve officers as promulgated, but it lacks practicality. With the skeletonized regiments we have, the overhead utilized at most posts and the large number of reserve officers attending each camp so limit the opportunities for the direct exercise of command as to render the scheme futile.

In every group of reserve officers there are a few (though perhaps a very few) who have taken full advantage of their opportunities for advancement in their qualifications as officers; by completing all the extension courses, by strict application during active duty training, and by reading and study otherwise. These officers particularly would benefit by a thorough grounding in specific subjects such as a two weeks' practical course under competent instructors would afford.

With such a scheme of training in force a reserve officer would have a more definite objective for his active duty training and would acquire more detail, which he now skims over.

International Small-Bore Rifle Competition

THE small-bore rifle competitions this year will see Germany entering into competition with the United States and Great Britain in a triangular international match which is destined to bring about the same close relationship and amicable rivalry among the three nations that for years has existed between the United States and Great Britain and various of its possessions for years through the Dewar trophy match, which was started in 1909, and the international railwaymen's match, which was started in 1927. Another international match, the Fidac, has been bringing the inter-allied nations into competition since 1930.

The new international event will be fired by the contending teams in their own countries on dates announced in advance, following the principle adhered to in the firing of the already established international competitions. The United States team will fire its scores on the closing day of the Camp Perry small-bore meet, the same day on which the American Dewar and railwaymen's teams will shoot. The firing of the Fidac match is fixed for the preceding day.

In the new United States-Great Britain-German event, teams of 10 men will fire. The conditions call for 40 shots per man at 50 meters on the international 50-meter target, small-bore rifles with metallic sights. A permanent trophy is being provided by the Rheinische-Westfalische Explosives Company, of Nuremburg, Germany. The team to represent the United States will be selected by the National Rifle Association, the British team will be named by the Society of Miniature Rifle Clubs of Great Britain, and the German representatives in the match will be decided upon by the German Association for Hunters and Sportsmen.

The entire arrangements which have been lined up by the National Rifle Association have met with general satisfaction among the shooters of the country in respect both to the one big small-bore meet and the state and regional high-powered rifle and pistol tournaments. Every shooter will get a chance for the different trophies and the championships which they represent and it can be confidently predicted that vastly more men of all groups of marksmen, military and civilian, will be on the N. R. A. 1933 peace-time firing line this year than last year.. (From Official Release. National Rifle Association.)

General Casimir Pulaski

The First Chief of American Cavalry

By Victor L. Alski, Editor and Publisher of the "Pittsburczanin Daily," Pittsburgh, Pa.

OCTOBER 11, 1929, marked the 150th anniversary of the death of Brigadier General Casimir Pulaski, Revolutionary War hero, on whom historians justly conferred the title of the "Father of American cavalry." In the annals of this romantic branch of national defense the name of Brigadier General Pulaski is inseparately united with the organization and institution of it, and he bears the distinction of being the first chief of American cavalry.

Like that other brilliant soldier, Thaddeus Kosciuszko, General Pulaski came to America, animated only by pure idealism. Unfortunate in his endeavors to free his own Poland, he wanted to fight for the liberty of the New World.

Writing to Col. R. H. Lee, August 13, 1778[1], General Pulaski stated: "Honor and a true desire of distinguishing myself in defense of Liberty was the only motive which fired my breast for the cause of the United States." The fame of his name and the greatness of his achievements were reflected in a letter of introduction which Franklin wrote to Washington, May 29, 1777[2], who spoke of Pulaski as "an officer famous throughout Europe for his bravery and conduct in defense of the liberties of his country."

General Pulaski first met Washington at his headquarters at Neshaminy Falls, Pa., and after interviewing the Polish officer, Washington recommended Pulaski to Congress. Unwilling to remain idle until the commission should reach him, General Pulaski joined the army which was at that time opposing General Howe's advance on Philadelphia. At Brandywine, September 11, 1777, while still only a volunteer, he "greatly signalized himself"[3] saving by a dashing attack with a handful of men the retreating American army from being cut off by the British, thus "fully sustaining, by his conduct and courage, the reputation for which the world had given him credit."[4] It was here that General Pulaski rendered great and invaluable services to the cause of the colonies, since by his dauntless courage, fortitude and devotion, he saved the whole army of George Washington from total destruction and disaster.

Not long thereafter, "it was again through his intelligence and activity" that the army of Washington was saved from a surprise attack of the British at Warren Tavern.[5]

Appreciating Pulaski's services Congress rewarded his bravery by commissioning him, at the instance of Washington, the first commander of the American cavalry with the rank of Brigadier General, September 15, 1777. General Washington, in his letter to Congress recommending Pulaski for this place, said:

"This gentleman has been, like us, engaged in defending the liberty and independence of his country and has sacrificed his fortune to his zeal for these objects. He derives hence a title to our respect that ought to operate in his favor as far as the good of the service will permit."

Shortly after this followed the battle of Germantown, where nearly all the cavalry had been divided for special services. Pulaski again displayed his bravery, and following this engagement he covered the retreat of the divisions of Greene and Stephen.[6]

When Washington went into winter quarters at Valley Forge, Pulaski was sent to Trenton, N. J., with his cavalry where forage for the horses was easier to procure. There he displayed his untiring energy for the betterment of that branch of service which hitherto had received little attention in the Continental army. His many memorials and letters to Washington and Congress, preserved in the historical archives and written by him in the character of Commander of Cavalry, reflect great credit on his talents, his patriotic zeal and his sedulous care of the soldiers. During the winter he reorganized the existing regiments of dragoons, formed a new detachment of horse armed with the famous Polish lances—a new weapon on this continent—and this detachment he personally "undertook to train and perfect in their exercises."[7] He supplied the cavalry with its first set of service regulations and tried to inspire his soldiers with discipline and martial spirit on every occasion.

"He was an expert horseman, and not the most trivial among his contributions to the efficiency of Washington's cavalry was the knowledge of equestrianship which he imparted to it."[8] "General Pulaski was thought to be the best and most expert horseman in the American service."[9]

Acting upon orders received from Washington in February, 1778, General Pulaski joined General Wayne. Their combined forces defeated the British at Haddonfield, near Camden, N. J., and in reporting to Washington Wayne stated that "General Pulaski behaved with the usual bravery, having his own horse wounded."[10]

In the dark days that followed, conditions in the cavalry perplexed Pulaski very much. There was a steady dearth of everything. Some of the officers of higher rank were dissatisfied because they had to obey the orders of a foreigner, however distinguished. Unwilling to be the cause of disharmony in the ranks in those crucial moments, Pulaski resigned his commission of Commander of the Cavalry in March, 1778. Having returned to Valley Forge, Pulaski presented to Washington a plan of raising an independent corps, consisting of cavalrymen and infantrymen. In accepting the plan and recommending it to Congress Washington paid this tribute to Pulaski: "Pulaski's

valor and active zeal on all occasions have indeed done him great honor.''[11]

On March 19th, Congress sanctioned the formation of the corps which is known in American history as the celebrated Pulaski Legion. It was one of the few detachments of the Revolutionary army predominantly foreign in its composition. During the recruiting of the Legion, Pulaski visited Bethlehem, Pennsylvania, where he ordered from the Moravian Nuns a banner for his Legion. This incident served as a theme for Longfellow's beautiful and well-known poem. For this banner, now preserved by the Maryland Historical Society of Baltimore, Pulaski paid out of his own funds just as he gladly bore many other costs of the equipment and sustenance of his beloved Legion. Captain Baldeski, paymaster of the Legion, stated that ''General Pulaski has laid out for the Legion at least $50,000. of his own money'' without any expectation of a refund.[12]

By the end of September, 1778, Washington sent Pulaski to New Jersey, where through the treason of a Hessian deserter the infantry of the Legion was surprised by 400 British under Capt. Ferguson at Egg Harbor, October 15, and only the prompt arrival of Pulaski with the cavalry prevented the annihilation of the infantry and forced Ferguson to flight with heavy losses.

In February, 1779, on orders of the Congress, having strengthened the Legion with new recruits, Pulaski set out on his way and in spring ''reached Charleston, S. C., at the very time when the British General Prevost suddenly appeared before that city, in the confident expectation that it would surrender to him on the first summons. The unlooked-for arrival of Pulaski baffled his hopes. Already had the Governor and the Council agreed on terms of capitulation, when General Pulaski, accompanied by the brave Colonel Laurens, repaired to the Council Chamber to protest against that precipitate measure, declaring that, as a Continental officer, he would defend the city for the United States. In order to revive the drooping spirits of the inhabitants, Pulaski sallied on with the Legion and by a display of bravery dispelled the general panic and introduced military sentiments into the minds of the citizens. This sortie of Pulaski caused Prevost to retire from the city.''[13]

From the moment that the British forces started their retreat from the attempt to capture Charleston until their arrival in Savannah, Georgia, Pulaski, although suffering from frequent attacks of climate fever, pursued the enemy, dealing them a blow whenever possible. In the ill-fated assault upon Savannah, October 9, 1779, Pulaski was wounded in the thigh and two days later he died on board of the ship *Wasp*. His companions ''consigned his corpse to a watery grave.'' His death was lamented universally by the patriots of the Revolution.

NOTE: The author is particularly indebted to M. Haiman's "Poland and the American Revolutionary War," Chicago, Ill., 1932, for much of the material presented in this sketch.

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[8] J. Gurn, "Why We Honor General Casimir Pulaski," Columbia, Oct. 1929.
[9] Eager, History of Orange Co., N. Y., p. 337.
[10] Griffin, III, 56.
[11] Griffin, III, 56.
[12] Saffell, Records of the Revolutionary War, pp. 30-36.
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General Casimir Pulaski

Tactical Mobility of Cavalry

By Colonel M. von Wiktorin, Austrian Army

EVERY country endeavors to lend her Cavalry as modern a shape as possible. However, in doing this, one must always consider certain basic principles which will remain essential as long as Cavalry exists; otherwise this evolution cannot fulfill its purpose.

As the first and most important principle, the Cavalry must retain its true nature, great tactical mobility. The medium for this characteristic is the horse, with which the Cavalry can move across country in large or small groups or even as single riders; and so mounted Cavalry can get as near the enemy as possible with a minimum percentage of casualties before being forced to dismount and continue fighting on foot.

This explains the second basic principle, that the main body of every large Cavalry force must consist, as it always has, of horse troops, Cavalry and Horse Artillery.

Therefore, and this is the third principle, this mounted main body must continue to constitute the chief combat factor and possess a fighting power which measures up to the problems usually confronting the Cavalry. These problems may consist of a quick obliteration of local resistance by bold attack, mounted if possible and enveloping the enemy, as may happen on missions of reconnaissance, interference with the enemy's contact between his own troops, pursuit, etc.; or they may consist of long drawn out engagements on a broad front, as may be the case during border service, screening missions, holding of a sector until the arrival of the Infantry, retreat, etc.

All these problems are not to be solved, however, by long and bitter fighting, but by clever employment of great tactical mobility. For these problems, the fighting power of a normal Cavalry division is generally sufficient, the main body comprising 6 Cavalry regiments and 1 to 2 Artillery detachments.

In spite of this, it is only a natural desire to develop the fighting power of the Cavalry as highly as tactical mobility permits. This can be achieved either by increasing the fighting power of the mounted units or by attachments of other troops, particularly mechanized units.

How is a further increase in fighting power for the mounted units possible? By an increase in the number of the Cavalry units, and by an increase, or improvement of, the firearms, particularly of the automatic weapons.

Basing the strength of a modern Cavalry regiment on 4 rifle troops, 2 machine gun troops, and 1 headquarters troop, as I described it in the CAVALRY JOURNAL of April, 1929, one may easily see that neither the number of Cavalry regiments of the division nor that of troops of the regiment can be increased. A gain in size would mean a loss in tactical mobility. Although permissible, a strengthening of the squads and platoons in the mounted troops would be of little value to the whole.

This leaves only an increase in, or improvement of, the firearms. The number of rifles in a troop is 60 to 70 or 80 at the most, discounting those of patrols and horseholders. However, the fighting power of the mounted troops can be raised considerably by giving each troop 8, instead of 6, light machine guns and several automatic rifles, as soon as tests of the latter have been found satisfactory in every respect. Perhaps the automatic rifles may replace the light machine guns later on altogether, whereas a general armament of the entire Cavalry with this weapon can never be considered. Aside from many other objections, such an armament of all troops would lead to an expenditure of ammunition which no country could afford.

In regard to the heavy machine guns of the machine gun troops, I believe 6 is the correct number to keep the troop as mobile as possible and to give it sufficient fire power. This puts at the disposal of the regiment a total of over 12 heavy machine guns. It is far better to carry these guns on pack horses than on four-wheel carriages drawn by six horses; the guns remain tactically highly mobile, the principal consideration for Cavalry.

2 platoons of super-heavy machine guns and Cavalry field pieces per regiment are sufficient. It remains only to decide whether these guns, too, should be carried on pack horses rather than by automotive transportation, in order to be able to follow the Cavalry quickly in any terrain. Again I am in favor of horse transportation.

A further increase in the fighting power of a Cavalry division is the independent Cavalry machine gun detachments. These units constitute a reserve at the disposal of the division commander, who will employ them at points where he wishes to furnish additional fire power to a brigade or regiment. Since it is the primary mission of these machine gun detachments to cooperate closely with the Cavalry, they must possess an equal tactical mobility, that is, they, too, must rely on horse transportation. The machine guns, however, may be carried on caissons drawn by six horses; this will result in a considerable lengthening of the column of march, but will also be less fatiguing on men and animals. In my opinion, the number of machine guns in such a detachment should be and can be larger than that of the machine gun troops of the regiments. Instead of 6 guns, there should be either 4 platoons of 2 guns each, viz 8 guns, or 3 platoons of 3 guns each, viz 9 guns. A rather respectable fire power.

To increase the fighting power of the Cavalry main body of a division beyond the point mentioned in the foregoing would impair the tactical mobility, which must remain all important. Nevertheless, the rifle troops will gain several automatic rifles and light machine guns, and the independent Cavalry machine gun

detachments will increase their fire power by several heavy machine guns.

The second part of the mounted main body of a Cavalry division is the Horse Artillery. It must, of course, be strong enough to render the Cavalry sufficient assistance. Therefore, a detachment of 3 to 4 batteries would be insufficient. The Artillery should consist of a regiment of 6 batteries of field guns and field howitzers; field guns alone are inadequate today.

A question for the Cavalry arises here, whether to introduce also mountain horse batteries, that is, mountain Artillery transported on pack animals and led by mounted men. During the World War the Russians had several such batteries with their Caucasian Cavalry divisions and they are reputed to have given good results. The Yugoslavs have added such a battery to each of their Cavalry divisions.

From the standpoint of tactical mobility alone, mounted mountain batteries and mounted machine gun troops would be preferable to those which employ horse drawn transportation. There will always be enough pack horses sufficiently strong to trot or even gallop at times under their heavy loads. I should doubt, however, if these pack horses would stand up under increased gaits for an extended length of time. One must consider, too, that such a battery becomes a large body; one field piece alone and its necessary ammunition need 15 to 20 pack horses and as many mounted leaders. Another point to be considered is that the pieces must be unloaded and assembled before firing, which will take considerably more time than an ordinary battery requires to unlimber. Time, always an important factor in the Cavalry, is even more so in certain circumstances today. I do not believe, therefore, that such mountain batteries would be suitable for Cavalry; although practical tests with such batteries would be advisable.

The foregoing observations lead to the conclusion that the main mounted force of a Cavalry division should consist of 6 Cavalry regiments, 2 Artillery detachments of 3 batteries each, and 2 to 3 independent machine gun detachments. The next question is that of a suitable organization; that is, whether to form 3 Cavalry brigades of 2 regiments each with the Artillery and the independent machine gun detachments as divisional troops, or to form 2 brigades of 3 Cavalry regiments each with 1 Artillery detachment and 1 independent machine gun detachment permanently attached to each of the 2 brigades.

This calls for the following consideration: 3 brigades of 2 regiments each will leave often not much more than one regiment in one or the other brigade after a deduction of reconnaissance parties, reserves, special assignments, etc. This means, that at least one brigade command is then superfluous. Therefore, I think it would be better to organize only 2, but strong, brigades, which may detach several troops and still remain a large and effective body.

A further examination of the entire character of the tactical employment of the Cavalry shows in most cases that the brigade is an independently operating unit which should have the permanent assistance of Artillery. This is another point in favor of only 2 strong brigades, with independent machine gun detachments and Artillery permanently attached.

Having covered all points concerning the main mounted body of the Cavalry division, we ask next what other troops a Cavalry division needs. The question, however, deals only with such troops as are a permanent and organic part of a Cavalry division. Of course, more troops of the various branches of the service may be attached temporarily to a Cavalry division.

We have the bicycle battalion which most armies assign to the Cavalry division. The experiences of the War, however, have taught that the bicyclists are not suited for assignment to the Cavalry, particularly in hilly terrain or where the roads are bad. In such cases the bicyclists will have to push or carry their bicycles and are, naturally, very tired when they enter the actual combat zone, while they may be intended to carry the brunt of the battle.

Moreover, the tactical mobility of these bicycle battalions is very limited. The bicycles cannot be left very far behind the zone of fighting, and the battalions are, therefore, forced to remain in the vicinity of roads or to cover a long march back on foot after the battle in order to reach their bicycles. Lately, several trucks have been attached to the bicycle battalions to transport the wheels when necessary; even this can be considered only a last resort. Therefore, bicyclists of a Cavalry division may be looked upon as a fighting force only in a theater of action with a predominatingly level topography and with many and good roads. On the other hand, bicyclists are very suitable for employment as messengers.

Mechanized units are best fitted to reinforce and to supplement a Cavalry division. Care must be taken, however, that the Cavalry does not lose her true nature by the amalgamation with mechanized units; that is, the horse must remain the predominant element in the Cavalry division. The Cavalry will lose its tactical mobility if too much attention is paid to the mechanized units, while it cannot possibly keep up with the motors on roads. If, however, the mounted and mechanized units are left to operate individually and separate from each other, it would be useless to combine these two forces into one division.

The object is to find the true relationship between horse and machine, to determine what type and how many mechanized troops the Cavalry needs and finds consistent.

Since the bicycle battalion generally has no suitable place in a Cavalry division, it has been suggested that this battalion be equipped with motorcycles. This idea apparently has many points in its favor; closer observation, however, shows here, too, that a motorcycle battalion is not suitable. The increased speed on roads and the fact that this medium of transportation is less fatiguing are admitted. However, again tactical mobility is lacking. The battalion cannot advance across country, and, after having dismounted to go into action, the men are just as dependent on their motorcycles as the bicyclists are on their bicycles. Further disadvantages are, particularly, the noise of the motors

and the clouds of dust which easily betray the march of the column and greatly handicap observation and reconnaissance during the march. Another disadvantage is the greater length of the column on the march; while bicyclists can travel by keeping an approximate distance of 10 m. between men, motorcyclists require a minimum distance of 30 m. between men. Finally, motorcycles are expensive, considering the initial cost plus upkeep and the number of soldiers they will carry. Because of all these reasons entire motorcycle battalions are not advisable; a Cavalry division should not have more than one company. However, motorcyclists are indispensable for messenger services of all kinds, and every modern unit today must have several motorcyclists at its disposal. These men are of particular importance for relaying of messages from reconnaissance parties, inasmuch as a horseman nearly always would arrive too late if he had to cover great distances.

The reinforcement of Infantry troops, which is given every Cavalry division, is an independent battalion of Infantry carried on motor vehicles, and these cars should be constructed so as to be able to progress across country. This battalion, of course, must have, in addition to the 3 rifle companies and 1 machine gun company, a gun platoon and a platoon of super-heavy machine guns for antiaircraft firing, a pioneer section, a communication section and a supply section. Its tactical mobility must be increased by horses carried on portée trucks (for the use of commanding officers and for reconnaissance parties), by machine guns, etc. These horses will be used when the battalion has unloaded near the enemy.

Such a battalion forms quite a large body; it uses 60 to 70 trucks and 20 to 30 motorcycles, but it also possesses a considerable fighting power, which compares with that of a Cavalry regiment. One may easily see that a Cavalry division does not need and cannot employ more than one such battalion.

However, what the Cavalry division needs further is a battalion of special troops, consisting of an armored car company, if possible, with a platoon of tankettes (Martel-Morris or Carden-Loyd); the previously mentioned motorcycle company, plus one company for the protection of the trains in the rear, which in an independently operating Cavalry division are exposed very often to considerable danger; and, finally, one company which is charged with the maintenance of traffic and march order, so particularly necessary when mounted and mechanized units travel together, and the posting of "traffic policemen" to keep the troops on the right road. The larger part of these last two companies is carried in automobiles; the remainder uses motorcycles.

Of motorized Artillery the Cavalry division needs, primarily, a battery of long range guns, the so-called "long arm," next 1 to 2 batteries of field howitzers, and, finally, a battery of antiaircraft guns for the protection of especially important points, such as bridges and defiles. For the defense against low flying planes, which for example may attack the horses in rear of the dismounted Cavalry, the Cavalry regiments are equipped with super-heavy machine guns.

The pioneer sections of a Cavalry division must also be carried by automobile, and the signal troop must be partly mounted and partly motorized. Finally, every Cavalry division should have its own Air Squadron.

I do not believe that mechanized troops, in excess of those mentioned above, are compatible with a Cavalry division. So organized, horses and machines of the combat units compare as about 3 to 1; the horse remains the predominant element, and so tactical mobility is safeguarded.

The trains, however, will replace the horse by the motor as far as possible; a reversed rate of 1 to 3 would be appropriate. Vehicles and combat trains of the mounted units must remain horse-drawn; four horses per wagon, or six for heavier transportation.

The topographical conditions of the terrain of the probable theater of a war are of principal importance, of course, in determining whether to furnish a Cavalry division with more or fewer mechanized units and to what degree the trains should be motorized.

The total organization of a Cavalry division is then as follows: 2 Cavalry brigades of the previously mentioned composition, the mechanized units as divisional troops and to be employed as shock troops, and the already greatly motorized trains. On the march the two Cavalry brigades and the mechanized parts of the division should move over separate roads to permit smooth moving of traffic.

As a final consideration for the tactical mobility of the Cavalry, the school of equitation is of vital importance. The fact still stands that the horse is a combat factor of the Cavalry. While the horse, in days gone by, had his greatest effect in the shock attack, his principal mission now is to carry the rider with his weapons across country and as fast and as near the enemy as possible, even though fired upon, and to carry the rider again after the combat.

Equitation in the open country still is very important, even more so now that the effect of modern firearms has rendered safe and fast riding across country more difficult than ever. There should be training especially in riding with led horses; the horses should grow accustomed to long wear of the gasmask, while the first training of the horse should include lying down upon command as a protective measure against observation and fire. Furthermore, all Cavalry horses should become acquainted with the noises of warfare—firing, motors, etc.—to avoid shying and runaways on every occasion.

A very important help for the promotion of the training of man and horse are the so-called Militaries (*dressage*, jumping, steeplechases). Unfortunately, most countries pay far too little attention to these training methods. Neither a *dressage* nor a jumping horse alone meets the requirements of the Cavalry horse; however, the horse must be trained in all branches that come into consideration for the Cavalry.

Tactical mobility is, and will remain, the first and principal demand upon modern Cavalry. If it does not meet this requirement, its role is finished in this age of motors and rapid firing arms.

Men Make War; Men Must Fight It

By Lieutenant Colonel Bernard Lentz, Infantry

THAT men make war needs no discussion. It is universally accepted as a fact.

Men must fight the wars they make. This is a subject that enlists our interest and may, perhaps, be discussed with profit in connection with various schools of thought of which one hears from time to time. It is a subject that is as old as war itself. Time and time again as we scan the pages of history we find man, who makes the war, trying to discover some substitute for the human being in prosecuting the war but up-to-date it has always failed.

Let me cite an example to make clear what I have in mind. The great wall of China was built at enormous effort, the builders thereof having in mind that it would keep out the barbarian hordes from the North but it failed to do so because the men behind the wall failed.

A volume would be needed to express all the thoughts that have come down to us from men who knew war and who concluded that man must ever fight the wars that he makes. In a recent World War book, *The Storm of Steel,* by Ernest Junger, a man who was wounded many times, we read: "The security of a position depends on the freshness of its defenders and the fighting spirit, not on the length of the communication trenches, and the depth of the firing line." The same author also quotes: "Battles are won by iron hearts in wooden ships." During the war with Spain, we had a popular song entitled, "It's the man behind the gun that does the work."

Most of the talking and much of the teaching has been along the lines indicated above but some of the peace-time thinking has from time to time relegated man to "second fiddle," until war was again at hand and then the old truth, that man must fight the war, has always asserted itself with a vengeance.

Our own General Forrest said "War means fighting and fighting means killing." It is not a pleasant thought that war must ever take its toll of human life. Hope has sprung eternal in the human (but combative) breast that some day, somehow, great walls, catapults, elephants, tanks, airplanes and what-not would take the place of the human being. Under the "what-not" we may even include "speech making" for does not history record (I use the words of Guedalla) "What befell Athens when she could put forward no surer defense against Philip of Macedon than the most brilliant orations ever written in praise of freedom?"

At this time, I shall introduce, what I choose to call my text, taken from Byron's *Don Juan.* It will be recalled that at a certain point in the story, Don Juan, having escaped from the Turks with an Englishman as companion, applied for service with the Russians. The Englishman being known to the Russian General had no difficulty in joining up but when it came to Don Juan the Russian General asked: "But, what can this young man do?" And the Englishman emphatically and ardently replied: "Why, General, if he hath no greater fault, in war, than love, he had better lead the assault."

With this fine recommendation Don Juan was readily accepted and he proved to be a great assaulter. He and some worthy comrades having used the bayonet with tremendous success during ensuing battles, Byron agreed that the Don Juan way was the correct way to win battles and added—to show how battles are often lost—the couplet of philosophy which shall constitute my text:

"They sometimes with a hankering for existence,
Keep merely firing at a foolish distance."

Quite recently there came to my attention some observations on war in the future, that fit into the discussion. To quote: "Military strength no longer depends directly on man power actually in training or of the trained reserve. Until quite recently the most sturdy and reliable soldiers were drawn from the agricultural population. However, if not today, at least in the near future, all civilians connected during peace times with machines and more particularly with such as can be immediately used in war—motor cars—trucks—busses—tractors—will form the main recruiting ground for armies."

I am inclined to agree with the above quoted observations "in principle" and in so doing I shall be more reciprocal than was Lloyd George of whom the late President Wilson said: "Lloyd George accepted, 'in principle,' everything that I advocated and then challenged every particular instance."

I shall simply make some reservations, for no thinking person could possibly be against great walls, catapults, elephants, trucks, busses, tractors, et cetera, (all in their proper period in history) as aids in fighting battles and in preserving human life. We need all the latest and best engines and accessories of war in abundance. The nation which neglects to keep abreast of the times with regard to inventions deserves to be defeated. There may, however, be danger that over-enthusiasm for first-rate implements and engines of war may bring about, as has been the case in the past, an under-supply of first-rate fighting men. This may result in the situation where second rate fighters (though they may be first rate technicians) "with a hankering for existence," will "keep merely firing at a foolish distance," and battles will be lost.

Here a reservation is appropriate to the effect that in wars, ten, a hundred or a thousand years hence not

only will the factories have to be combed for Don Juans but the agricultural population, as well, will have to be drawn upon for sufficient men who with or without all the latest machinery will subdue "a hankering for existence" in order that airplanes may not be "zooming," tanks may not be "grousing," and men in hob-nailed shoes, may not be firing "at a foolish distance."

And even when we have first-rate fighters manning first-rate tools, over-enthusiasm for the tools coupled with over-estimation of their powers, and great assiduity on the part of manufacturers to make profitable sales, may cause an over-supply of impedimenta—more than the first-rate fighter can handle—and that too may cause disaster.

Don Quixote de le Mancha was as valiant a fighter as has ever been brought to fame in prose or rhyme but he overloaded himself with arms and armament. By way of description of one of Don Quixote's many encounters (always without the least hankering for existence) we read: "Rosenante (his horse) fell and his Master lay rolling about the field for sometime endeavoring to rise, but in vain, so encumbered was he with his lance, target, spurs and helmet, added to the weight of his antiquated armor. A muleteer coming to him took the lance, which having broken to pieces, and applied one of the splinters with such agility upon Don Quixote that in spite of his armor he was threshed like wheat."

Here I make another reservation to the effect that overloading even brave men is bad enough on the offensive but when it comes to a retreat it is worse.

Armies do or must retreat sometimes. Washington retreated most of the time and he became the father of his country.

Wellington said, "The best test of a great general is to know when to retreat and to dare do it" and following his own advice he defeated Napoleon. The Duke remained all the while suspicious of new inventions (except his own—a combination sword—umbrella) alleged to revolutionize warfare. At one time, so Philip Guedalla recounts in a recent biography on Wellington, the Duke was persuaded to look at some new devices. One man had a new bayonet drill which, its author said, would make one Englishman the equal of twelve Frenchmen. Then there was an artificial hill to facilitate reconnaissance and a lens which would use the sun's rays to burn up the enemy. The Duke, "after having looked and listened with some impatience gave his orders for the day to the Adjutant General, mounted his horse and galloped to the trenches." This demonstration took place in the Peninsula. Some years later when it was learned that Napoleon had escaped from Elba, the Duke quickly rejoined the Army in Belgium. During his absence at Vienna, a rocket troop had been organized. The Duke saw it and, "ordered the rocket troop to store its cherished weapons and use ordinary guns instead and when someone urged that the change would break the captain's heart the implacable reply was 'Damn his heart, let my order be obeyed.'"

The Duke of Wellington was always a man to see for himself, which often involved danger to himself and his deep aversion to new inventions of war was, in all likelihood, due to his belief that gadgets might tend too much towards "firing at a foolish distance."

Was the Duke right? My answer is "Yes and No," which simply means that we should put our best thought on the acquisition of the latest, but useful, arms and armament remembering all the time that we must still have the right kind of human being lest, "with a hankering for existence," there be too much activity "at a foolish distance."

I think it is appropriate to inject a remark about cavalry. No matter how many kinds of mechanization we may develop and adopt, I consider the trained trooper, on and with his mount, constitutes an individual much like an infantryman on foot who can fight in places where nothing else can operate. Furthermore in a pinch the trooper can get off his horse and fight on foot. If we abandon the horse entirely we may in case of war, encounter terrain, situations and phases of battle where "for the want of a horse (other transportation being unable to get close enough) the battle was lost" because of too much "firing at a foolish distance." We may in the near future develop transportation that will go *everywhere* the horse, and even the man on foot, can go but until that happens, I think we should continue to be "from Missouri."

We come now to the matter of leadership in battle. Will personal leadership still be necessary in wars of the future? Will it be still advisable to keep everyone from general to private on the "expendable" roster even though we employ every modern means of communication?

Thomas G. Frothingham, in his *Washington; Commander-in-Chief,* gives us a good illustration of personal leadership which, with a little imagination, we may use to illustrate a point.

We all know that on the night of December 25, 1776, Washington crossed the Delaware. Frothingham tells us that with Washington were such men as Generals Green, Mercer, Stirling, Sullivan, Stark and Knox. Other lower ranking officers were James Monroe and Alexander Hamilton. The plan had been that three detachments should cross the Delaware, at different points, but two of them presumably because of the snow and the ice and also lacking a Washington, never got started. Not so with Washington's band of 2,400 men. This force crossed in spite of snow and ice, surprised the Hessians at Trenton and won a victory of which Lord Germaine said: "All our hopes were blasted by the unhappy affair at Trenton."

Speaking of this affair, Frothingham says: "It would be difficult to find a parallel to this list of distinguished names in the roster of any military expedition of equal force." Is this not an illustration of the before-mentioned: "Battles are won by iron hearts in wooden ships?" I think it is.

Now let us assume the same situation and let us imagine that Washington on the morning of Decem-

ber 25, 1776, had been supplied with some up-to-date radio sets and that furthermore Washington had decided to exercise personal leadership by going "on the air." In line with other modern methods, we may imagine that Washington established his Command Post on the Pennsylvania side of the river, keeping a good share of the aforesaid distinguished men as staff officers. We can easily imagine a radio broadcast as follows:

> "Stand by: General Washington speaking at C. P. (372.6—428.5, Penn.) I urge you forward with all haste. In spite of snow and ice; and cold and freezing; it is the earnest wish of the Commander-in-Chief and the Continental Congress that you take Trenton this night or I had rather that Martha Washington become a widow. General Washington signing off."

Does anyone believe that Trenton would have been taken? I don't.

I have let my imagination stretch pretty far, not to condemn modern means of communication, but to point out that personal leadership will probably still be needed in future wars. Wire lines and radio nets are important but too much exercising of leadership "over the wire" or "through the ether" may be like "sending a kiss by wire"—not very potent—and may engender too much activity, "at a foolish distance."

In this age of the specialist, who as some wit put it, "knows more and more about less and less," the military has also been motivated to fall into line. With all our arms, branches, bureaus and services we have been compelled to organize more or less into compartments and this is liable to make our thinking compartmental.

No matter how much the specialist tries to view a problem objectively, unwittingly he will act as did the forbear of a friend of mine. This friend visited the village of his ancestors in Canada. He went to the old churchyard where his great grandfather was buried between his two wives who had preceded him to the grave. This great grandfather according to family lore, when he was about to die requested: "Bury me between my two beloved wives Rachel and Anna, with my head leaning just a wee bit toward Rachel." In the same way, the specialist's Rachel is usually his own specialty.

Take for example the method—"indirect laying." A specialist may become so "hipped" about indirect laying that the result in war may be too much indirect laying—down on the job—which is the same thing as too much, "firing at a foolish distance." The consequence might be as suggested by a Chinese student at the Infantry School who having had an indirect laying chart explained to him observed: "By the time I get all this done a great big Jap he standing on top of me."

Perhaps I can elucidate further by telling of an informal visit I was directed to make to certain stations shortly after the World War, with a view to finding out how everybody was getting along. I began my visit at Department Headquarters. Here everything was clicking, G's, technical and administrative staffs, clerks, orderlies, typewriters, ticklers on desks, rows of buzzer buttons, mimeographs, stacks of papers coming to the "in" baskets and other stacks being periodically removed from the "out" baskets. Everybody fully occupied. Morale excellent.

Next I went to the Camp Headquarters located in a large temporary building of a war-time cantonment. Here, too, I found everything going full steam ahead. Doing fine. They were so wrapped up in their work.

Then I proceeded in turn to a Brigade Headquarters and a Regimental Headquarters and I found full forces keeping busy and cheerful. Lastly, I went to a Battalion Headquarters where I found the battalion commander and his adjutant not doing much. They had plenty of time to talk to me. I finally asked the major: "How many men do you turn out for drill?" and he replied: "Why, we don't drill at all; by the time we get through furnishing men for clerks, orderlies and fatigue, there is nobody left for drill".

As explained above, this was shortly after the war; the outfit had recently returned from overseas and large numbers of men were being discharged. The situation was self-explanatory. We were demobilizing. But the incident does illustrate how *not* to organize for battle lest (and this may not be with a hankering for existence) there be too much activity "at a foolish distance".

It has at times been argued that it takes more ability to do staff work than it does to lead troops in battle. I shouldn't want to argue either way. I don't know enough about it. Both, I should say, require the best we can find. I do not believe, however, that staff work, even if it is more important, should be overglorified or the trend of the best ability may be too much toward command posts and tactical, technical and administrative over-staffing, with its attendant specialization, may result in too much ability functioning "at a foolish distance".

Specialization, to which I have directly and indirectly devoted several paragraphs, does not help us toward what is needed more than anything else, viz: viewing problems as a whole—integrated thinking. Dr. John Dewey, our well known philosopher says on this score: "It is daily more evident that unless some *integration* can be attained, the always increasing isolations and oppositions consequent upon the growth of specialization in all fields, will in the end disrupt our civilization".

So I say, integrated military thinking (the kind of thinking that is done by "Generalists") which uses, but controls, specialization and which is ever directed towards subduing "a hankering for existence" and discouraging, "firing at a foolish distance", will, as it has always done, go far by way of preparing us for future battles.

And finally, through integrated thinking, I feel, we are bound to conclude, as long as men persist in making war, that men, as always, will have to fight it.

An American Military History Foundation

By Lieutenant Colonel Joseph M. Scammell, Infantry, California National Guard

"An American Military History Foundation offers important advantages to our country through the sound military history it will produce or encourage. Military history is valuable not alone for professional soldiers, but for citizen soldiers, our statesmen and the public who, in the final analysis, determine our national policies in war and peace."

—Maj.-Gen. George E. Leach

TWENTY years ago there appeared in the *Infantry Journal* an article by Professor R. M. Johnston of Harvard University entitled "*What can be done for our military history?*" As a result of this article and the discussion that followed it, Professor Johnston secured from the American Historical Association an invitation to the War Department to send delegates to its annual meeting at Boston in 1912. Major James W. McAndrew from the Army War College, Major George H. Shelton, the editor of the INFANTRY JOURNAL, and Captain Arthur L. Conger, from the General Service Schools, were selected as War Department representatives. A special conference, presided over by Professor Albert Bushnell Hart, was devoted to a discussion of military history.[1] Theodore Roosevelt was among the most forceful speakers.

Both General McAndrew and Professor Johnston died shortly after the war; but the committee on military history appointed by the American Historical Association continued its existence. No other significant developments took place; so that Professor Charles F. Haskins, in his opening address to the American Historical Association during its meetings at New Haven in 1922, stated in summing up the trend of American historical scholarship, that military history was still in its infancy.[2] Two years later the Committee on Military History passed out of existence.[3]

During the ten years that have elapsed since this committee disbanded, the Army has renewed its interest in the study of military history. All elements of the Army school system are now devoting more time and effort to this phase of military training than ever before. With this revival of interest has come a truer appreciation of the difficulties involved in securing historical evidence upon which sound conclusions can be based. The need for an organization to overcome these difficulties is well stated in an article by Major C. C. Benson on *American Military History* which appeared recently in several of our military magazines. His article concludes with a proposal that there be established an American Military History Foundation—a timely and important revival of an idea that has been gaining momentum for many years. There is a vital need for some organization able to supply both civilians and military men with accurately and intelligently recorded military history. The purpose of military history is to establish the facts of war, to analyze the facts thus established, and to interpret them so that the lessons of past experience may form a guide for future conduct. Wars may be studied from two general points of view: that of the statesman and that of the soldier. The former is concerned primarily with the political aspect; for war is a political act. It may profitably be studied to determine how wars may be prevented, or, failing in that, to learn how to conduct wars successfully, to the end that the conflict may be made short and peace restored with the least cost in casualties, destruction, suffering and material resources.

Those pacifists who view war through the mists of their preconceptions and hopes are often hostile to the study of military history, failing to appreciate the value of the accurate recording of the facts of war as a means of preventing it. But there are those who make no such mistake. At the conference on military history in 1912 Theodore Roosevelt was pointed out by Professor Johnston as a practical man of peace who had been instrumental in bringing the Russo-Japanese War to an end. Major McAndrew protested against the type of "history" which conceals mistakes and their terrible consequences. "The education of our people in our military history will be the best guaranty of continued peace", he said, pointing out how in 1898 an uninformed popular clamor drove an unwilling administration to declare war against Spain contrary to the advice of our military and naval advisers. Professor Johnston challenged those pacifists who opposed the study of military history, in these words: "If you wish to put down war, surely you would wish to ascertain what are the facts of war, otherwise how can you present a case?" Mr. Oswald Garrison Villard who attended the conference as a former militiaman, and who described himself as "a peace man and almost a peace-at-any-price man" stated in his third capacity, as a scholar:

> "I sincerely hope that out of this conference there will grow a civilian national society for the study of military history, free from any violence, from any prejudgment."

This study of national policy through military history has been neglected, especially by statesmen who, dealing with a multitude of immediate problems, are generally only remotely, incidentally or occasionally

[1] *Annual report of the American Historical Association for 1912.* H. R. Doc. No. 933, 63d Congr., 2d sess. Washington. 1914. pp. 157-197.

[2] American Historical Review. Vol. XXVIII (Jan. 1923) p. 223.

[3] At that time it was composed of the following membership: Brig. Gen. Eben Swift, Col. Oliver L. Spaulding, Allen R. Boyd of the Library of Congress, Thomas R. Hay, Even Putnam and Lieut. Col. Jennings C. Wise.

concerned with wars or the possibility of wars; whereas these subjects are always present in the minds of soldiers. The consequences are that soldiers generally know a great deal more than statesmen about the relation between wars and policy. The world knows more about how to end wars than how to prevent them, and therefore, while in former times wars were practically continuous, they have since become of comparatively short duration.

The "Hundred Years' War" was followed by a "Thirty Years' War," and that by a "Seven Years' War." In the last century we had a "Seven Weeks' War" in which the Prussian Army, without war experience but soundly schooled by means of military history, defeated the veteran Austrian Army in one great decisive battle. In 1870 it defeated the French Army which had neglected to keep alive the lessons of its past experience. About the same time there were two great wars being fought on other continents by improvised armies ignorant of military history; that in America lasted four years; the Taiping Rebellion in China lasted fifteen years and cost twenty million lives. Examples could be multiplied. In this connection Woods and Baltzly's *"Is war diminishing?"* and the Carnegie Endowment's study on *Losses of life in modern wars* are worth looking into.

In 1903 the military correspondent of the *London Times,* Colonel Repington, wrote:

> "The price we pay for this penny-wise and pound-foolish abstention from historical research is written large in letters of blood across the report of the Commission on the War in South Africa, which showed up in lurid colors the apothesis of ignorance, naked and unashamed. Our system has been to remain ignorant of all the lessons of the past, and then to learn them over again with each succeeding war, at huge and needless cost."

Major General Sir Frederick Maurice in commenting on his history of the Egyptian Campaign of 1882, prophetically stated:

> "I believe that the fate of the next expedition which leaves the shores of England may be seriously affected by my success or failure to bring home to the great body of our people the experiences of the 1882 campaign."

The history of the Dardanelles expedition is sufficient commentary on this. During the World War, Lord Sydenham wrote in the *London Times*:

> "Mistakes are always made in war; but we have made no mistakes, naval or military, in the past two and a half years which the study of naval and military history might not have averted. Sound knowledge is the most important requirement of Governments."

Although the value of military history is recognized in our country as never before, there are some aspects of it that may be emphasized with profit. The first is that an agency of some sort is needed to raise our standards so that we may not fall into the error made by the French Army prior to the World War:

> "In the highest military circles there was no idea that history had its rules and methods and required systematic training; the Ecole de Guerre based its strategical and tactical doctrine on an historical documentation disconcertingly fantastic; we were incapable of differentiating a serious scientific work from one without value."[4]

The use of military history as a source for the derivation of doctrine is of great importance. Military history, the great repository of human experience in war, is analyzed to discover what factors have contributed to success and what things have led to failure. The conclusions are summarized and serve as a guide. The resulting hypothesis is called doctrine. A team uniformly trained in a sound doctrine enjoys powerful advantages. A leader knows what he may expect of his superiors, his equals or his subordinates; he can cooperate with them automatically and intelligently. Time, the essence of victory, is saved. It serves the purpose of pre-arranged plays and signals on the football field. Through this use of military history armies are taught to act in harmony as a team.

The individual leader or soldier profits from military history in a variety of ways. He expands his limited experience by adding that of others. Even if a soldier were to fight all his life in the wars of his country, he would know less than can be learned from the experience of others. The horizon of the student of military history is enlarged; his tactical judgment is developed; he gains understanding of the art of war as a whole; he grows in wisdom as a soldier, fortifies himself against tactical surprise and prepares himself for higher command. This professional culture, useful to any leader, is of especial value to those who have had no combat experience. Military history is the only substitute for reality in war.

In our service schools military history is used to illustrate and emphasize tactical principles and usages. Indirectly some of this instruction reaches the troops through graduates, mailing lists and articles in service magazines. Much of it is lost for want of an agency to perpetuate it in print. Much of it is prepared by officers unfamiliar with the technique of the historian. If all the effort now being put upon the study of military history in our Army, could be coordinated and directed into the most profitable channels, through the influence of the proposed Military History Foundation, great benefit to the Service would result. Admiral Vesey Hamilton, a British naval officer, remarked[5] that he learned more about military institutions and administrative methods from a study of how they came about than from years of practical experience. From a casual bit of historical research the evacuation system devised by Surgeon Letterman in the American Civil War was resurrected to serve our army in the World War. By historical research an officer may receive that kind of training which fits him for certain kinds of staff work, such as collecting,

[4] Rene Tournes L'histoire Militiare. Paris, 1922.
[5] *The necessity for a compilation of a naval staff history.* In the journal of the royal united service institution. Vol. LXVI (Aug. 1921) pp. 369-378.

evaluating and presenting military intelligence. It is the basis for all sound training for war.

What should be the role of the proposed foundation? What should be its functions? In *The University and Study of War*[6] Spenser Wilkinson said:

"If we are to turn out citizens and statesmen equipped for their functions in the actual state, we are bound to teach the nature of war," poining out that "A study of the state or of states that should omit to examine war must needs be crippled and defective. It would be like a study of the ship which should take no account of the sea". By now it ought to be plain that the superficial and emotional devices invented by the theorists have had their chance and have broken down. It is time that the universities, applying the scientific method to the study of war were given a chance to discover what are the actual facts of war, to develop in our future political leaders and makers of public opinion the power to see things as they are, to understand and teach what war is and what it means; so that our statesmen and voters may know how best to avoid wars or at least how best to restore peace. An American Military History Foundation might take as one objective the development of a school of American military historians and critics, competent to create sound public opinion. In view of the mistrust with which the American people regard the advice of the military, considering them to have the exaggerated point of view of all specialists, we need civilian military experts. In the United States we have never developed civilian writers on military subjects of the calibre of Delbrück and Pflungk-Hartung in Germany, Houssaye and Reinach in France, or Spenser Wilkinson, Sir Charles Oman and Sir Julian Corbett in England. Except Admiral Mahan and Admiral Bradley Fiske we have had no outstanding military or naval scholars equal to Generals Camon, Colin and Bonnal in France, or Generals Sir Frederick Maurice, Colonel Sir Ernest Swinton[7] and Admiral Aston. American soldiers read of our great commanders in the works of such British soldiers as Henderson, Maurice, Fuller and Liddell Hart. We have no group of military scholars laboring to establish an American theory of war. We need to encourage the study of military history among civilians as well as among our soldiers. The cooperation of both is necessary to produce the best results. Military history embraces three processes: The evaluation of evidence, the exercise of military judgment and the exercise of military criticism. For the first a sound training in the mechanics of historical research is necessary and, to assess the value of evidence, the scholar needs a considerable knowledge of military conditions. For the second, to determine the motives and intentions of a leader, military experience or the assistance of military men is essential. The same is true of military criticism of the decisions and actions of a commander. Today we have a studious corps of officers; hard workers, who appreciate the importance of military history. The time has come to organize this field of military culture. We can not start this organization too soon; from the moment it is organized, it will exert a powerful influence to strengthen the basis of American security.

[6] Inaugural lecture delivered before the University of Oxford Nov. 27, 1909. Oxford. At the Clarendon Press. 1909.

[7] Best known in the U. S. Army as the author of *"The Battle of Duffer's Drift"* and now successor to Spenser Wilkinson as Chichele Professor of Military History. All Souls' College, Oxford.

ERRATA

THE following typographical errors are noted in "The Evolution of Infantry Drill" as printed in the Infantry, Coast Artillery and Cavalry Journals. Each is materia', and I should appreciate it if you would insert an errata slip, or notice, in your next issue, correcting them.

Page 29: Legend, Figure 1, 5th line—Change "1916" to read "1616"

Page 29: 2nd Column, last line of leading paragraph—Sentence beginning "Firepower was ....", change "not" to read "now"

Page 33: 2nd Column, next to last line—Change "1885" to read "1855"

Jaroslavice, 1914

Observations and Deductions of an Infantry Officer

*By Beda von Berchem**

DURING the summer of 1928, accompanied by a former officer of the 1st Austrian Uhlans (the regiment still exists, incorporated in the Polish Army; it fought valiantly against the Red Russians in 1921), I followed the path of von Mackensen's victorious armies, from Gorlice to the Eastern Galician border. I had supplied myself with the excellent Austrian staff maps, and my guide's thorough knowledge of the campaign helped me to understand the various tactical and strategical problems which von Mackensen and his subordinates had to solve in 1915.

After having spent a night at Tarnopol, Rittmeister von R. suggested a visit to the village of Jaroslavice, where he had witnessed what he termed the last cavalry fight in the history of war. His regiment, the 1st Uhlans, had not participated in the short engagement between parts of the Austrian 4th and the Russian 9th and 10th Cavalry Divisions, but my guide had at his fingertips all the details of that much written-about action. Personally, I had read various accounts of that action, in many languages, including several versions published in THE CAVALRY JOURNAL, and, although I do not adhere to the common belief that it was the "last" cavalry action fought (there were others during the World War and later during the Polish-Russian War), the Jaroslavice action, from beginning to end, presents such a chain of errors and omission by both Austrian and Russian leaders that I came to the conclusion that an entirely different action might have been fought there, had certain principles of combat been strictly adhered to, especially by the Austrian commander.

My personal observations on the actual scene of the 1914 combat, while listening to my guide's explanations and while going over the ground, convinced me that General von Zaremba and Count Keller had violated most of the combat principles which had been taught me, an American Infantry Officer, in ten years of active service.

When I returned to Vienna, I spent some time in gathering more material, in talking to several officers who had participated in the action at Jaroslavice (Russian sources term the action that of Wolczkowce, a hamlet nearby) and, together with my notes, I began an outline of this article.

The 4th Austro-Hungarian Cavalry Division, Generalmajor (Brigadier General) Edmund von Zaremba commanding, was a part of the advanced cavalry screen, which, in August, 1914 had been charged with the prevention of a Russian invasion into Galicia. It belonged to the Lemberg defensive sector and operated in its own sub-sector, northeast of Tarnopol. During the first weeks of August, the Division, or parts of it, had marched and countermarched, in response to many false alarms referring to Cossack invasions. Excepting one minor brush with Cossack patrols, no enemy troops had been met with. Men and horses were tired; the majority of the mounts were saddle-sore in addition.

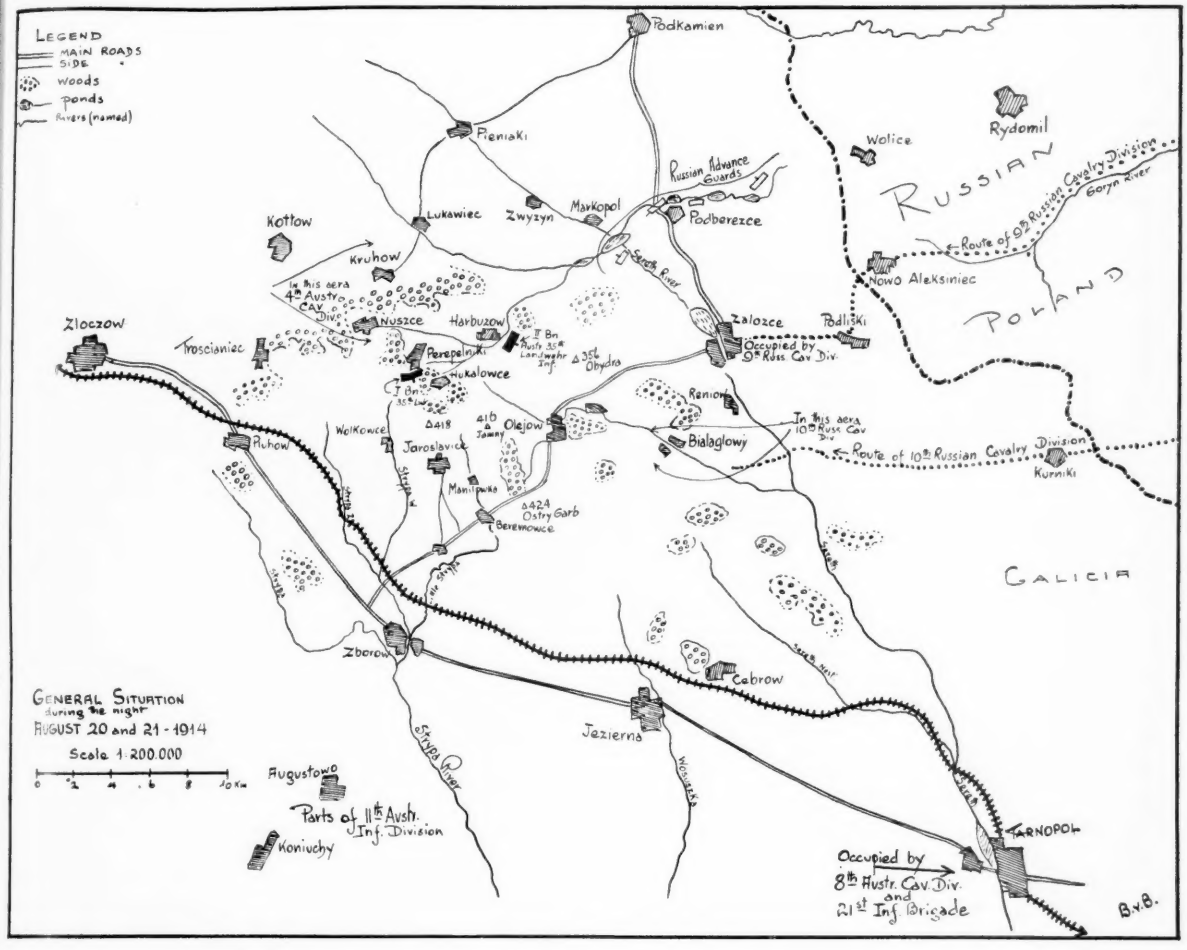
On August 20, 1914, General von Zaremba received intelligence that a reinforced Russian Cavalry Division had invaded Galicia near the city of Zalozee[1] *Without convincing himself of the truth of this report,* von Zaremba immediately issued orders which indicated his decision to meet the enemy. The 4th Cav. Div., in bivouac in and around the town of Suchowola, was set in motion toward Podkamien. Arriving there, the troops took up positions.

At Podkamien, von Zaremba received further intelligence. The Russian forces were definitely identified as the 9th Russian Cav. Div. under the command of Prince Begildejeff, supported by considerable infantry and artillery. The report stated that the Russians had marched via Olejow toward Zborow. General von Zaremba thereupon continued his march in a southwesterly direction in two columns. The two battalions of the 35th Landwehr Infantry Regt., attached to the 4th Cav. Div., were ordered to Harbuzow, while the mounted troops' destination was Kruhov, 40 kilometers distant. The 4th Cav. Div. arrived there late at night. General von Zaremba intended to attack the enemy early in the morning (August 21, 1914).

In order to present a clear picture of the situation, it is necessary to consider a field order, originating at headquarters of the Austrian IXth Corps, which indicated that the Corps Commander planned a concerted, cleverly thought-out, enveloping action which was to be executed by the 4th Cav. Div. in conjunction with the 8th Cav. Div. and the 11th Inf. Division. For reasons which are outside the scope and purpose of this article this enveloping action was never carried out, although it could have been brought about, had von Zaremba's leadership come up to a different standard. The order is mentioned here because the *belief* that either of these divisions might come to his assistance influenced von Zaremba in his dispositions, although he alone is to blame for not establishing proper liaison with the other Austrian troops. *Had he done so, he would have become aware of the pres-*

*A pseudonym.

[1] The first reports were incorrect.



ence of the 10th Russian Cav. Div. (Lt. General Count Keller) on his right flank. As it was, von Zaremba knew nothing of Keller's whereabouts—and neither did Count Keller have definite news about von Zaremba's forces. He only had "felt" the vicinity of Austrians. His numerous patrols had failed to locate them. He, so to say, stumbled upon the 4th Cav. Div. when he had reached the Berimowka Heights! ! !

For later purposes let us keep in mind the strength and positions of the other Austrian units on the morning of August 21, 1914. The available strength of the 11th Infantry Division, 5 battalions, 6 batteries and two troops of cavalry had arrived at a point 8 km south of Zborow. Only the 11th Inf. Div. and the 8th Cav. Div. had had an opportunity to discuss the action planned by the IXth Corps' commander; the 4th Cav. Div. had not. Thus, the three groups, with orders for a joint action, passed the night from the 20th to the 21st of August, 1914, as follows: The 4th Cav. Division 10 km northeast, the 11th Inf. Div. 30 km southwest and the 8th Cav. Div. 30 km southeast of Olejow.

In accordance with von Zaremba's orders, the 4th Cav. Division, at 4:00 A. M., August 21st, stood ready to advance, southeast of the hamlet of Nuszce. Two officers' patrols were sent out toward Olejow and Zalozce. A platoon of the 15th Dragoons was dispatched toward Zborow to establish contact with parts of the 11th Inf. Div. However, von Zaremba *neglected to send out reconnaissance patrols toward the southeast from where Count Keller's regiments were approaching.*

At 5:00 A. M. the main column started southward, to gain the commanding height, Hill 418. The two battalions of the 35th Landwehr were ordered to occupy Hill 416, near Jamny. I have been unable to ascertain whether or not the march was carried out with the usual precautions. My guide believed that only points and advance guards preceded the main column, but that the hilly terrain forbade flankers.

Von Zaremba believes the enemy to be far away. (But Count Keller's troops have already passed Jezierna, between the 4th Cav. Div. and the 8th Cav. Div.!). The 15th Dragoons are in the van of the marching column, one platoon of the regiment covers the left flank. It has been so disposed by the regimental commander!

Hill 418 is reached.

The reader will permit a digression here. The view is too vivid in my mind, and the detailed map will aid in visualizing the scene:

Hill 418 affords a splendid view of the country. Olejow, to the east and directly in front, cannot be seen. It is hidden by a chain of low hills, stretching from Jamny to the Berimowka, a wooded, round hill-top. Directly in front of the onlooker on Hill 418, about 3500 yards away, on a plateau, lies the village of Jaroslavice; to the right, in the swampy valley of the Strypa River, is the small hamlet of Wolczkowce. A large farm, Bezdonie, is just outside of the village. Zborow, invisible, is to the south. On the left of the onlooker is another large estate: Lipnik.

Hill 418 is the hub from which three chains of hills radiate. The one to the east is narrow, wooded. Its main elevations are Jamny (416 m), Berimowka (428 m) and Ostry Garb (424 m). This chain dominates the central main chain of rolling hills. Jaroslavice is situated on this main chain. Behind Jaroslavice (westward) is the Strypa River, winding its sluggish way through a swampy defile, which is cut, diagonally, by erosions in the soil and several deep ditches. A stone quarry is between the village and the narrow road to Wolczkowce. Westward, beyond the river, is another chain of hills, partly wooded, partly planted.

The woods on these hills are not always of the same variety. Coniferous trees alternate with thickly grown patches of maples, oaks, birches and dense undergrowth. The slopes of the hills, when not wooded, are a patchwork of small, planted acres. Some of those already show stacks of grain sheaves.

Rittmeister von R. told me that the topography had not changed in the 14 years which had passed since the action took place. He even led me to the swamp behind Jaroslavice where 8 Austrian guns had been lost, and we still were able to find relics of those unfortunate batteries, salvaged, after the action, by the Russians.

This, then, was the view which confronted von Zaremba and his staff.

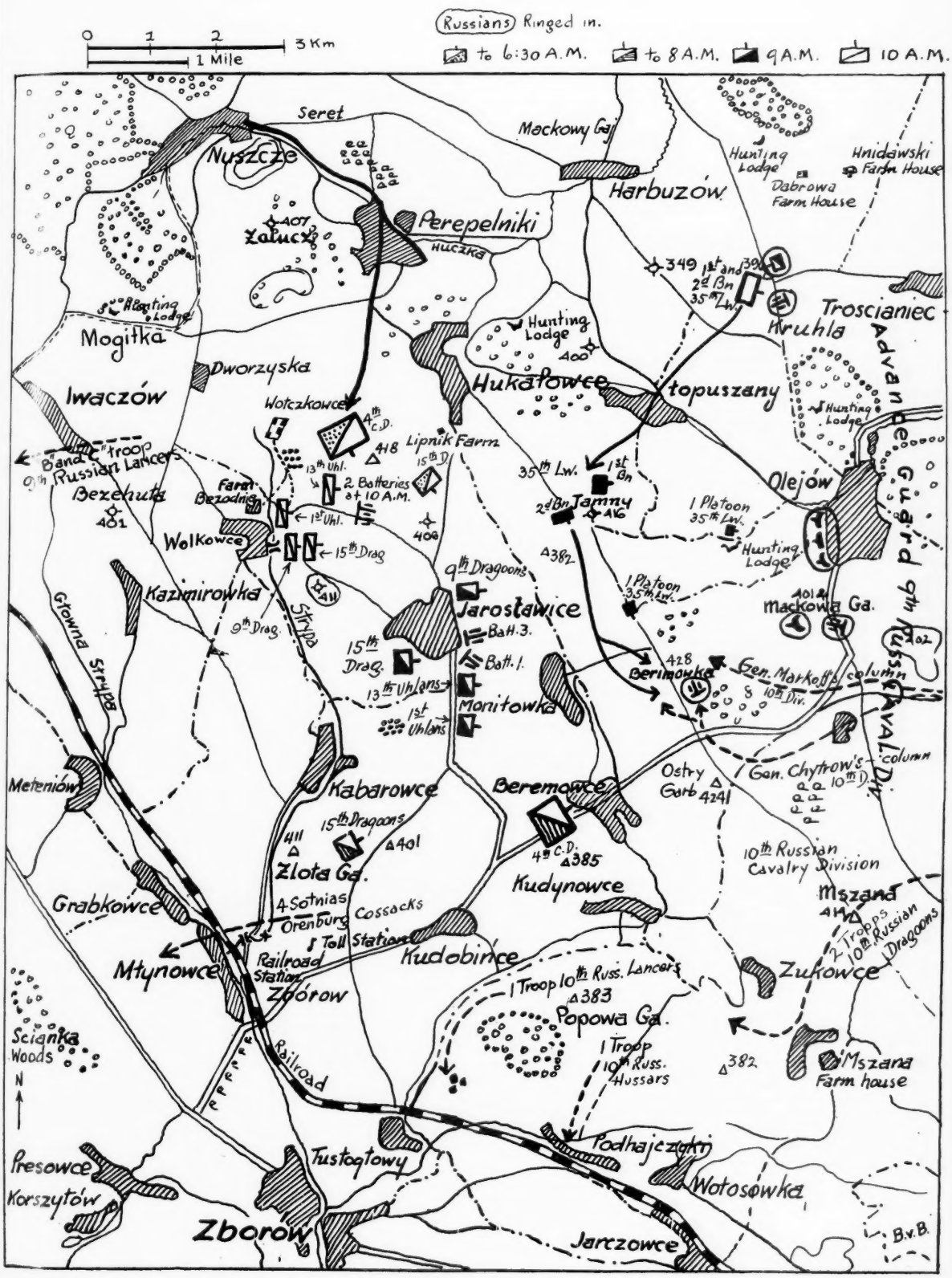
While impatiently waiting for his reconnaissance patrols to return, von Zaremba gave credence to one of his staff officers who believed he heard gunfire from the direction of Zborow. (There actually had been two detonations. Keller had sent 4 sotnias of Orenburg Cossacks toward Zborow, on his left flank, and one of those sotnias had set off two charges to destroy the railroad.)

Without checking up or making sure, von Zaremba immediately concluded that either the 11th Inf. Div. or the 8th Cav. Div., or both, had encountered the enemy and that he would come too late to participate in the action. The fact that he supposed gunfire could not be heard any longer does not seem to have had any importance whatsoever. Now comes the first unbelievable fact: *Without awaiting the results of his reconnaissance, he sets his division in motion toward Zborow.* (It is equally important to note that no orders for the march were issued, nor had he given any dispositions, in case of an emergency, to his brigadiers!) The Division passed Jaroslavice at or about 7:00 A. M. Von Zaremba had not the slightest idea of the actual whereabouts of the 9th Russian Cav. Div. and he was in blissful ignorance of Count Keller's (10th Russ. Cav. Div.) immediate vicinity. Count Keller was equally unaware of Austrians, in force in front of him. Leisurely, in the brilliant sun of an August morning, *a dust cloud high over their heads,* (seen by Keller) the division moved on. Two regiments in front, one each, in echelon, on the right and left, *the mounted batteries in the center* (how they could have got out quickly in case of an attack, is another point which I failed to have explained) the column passed Manilowka. The 2000 infantrymen of the 35th Landwehr are marching on the left flank. At this moment the officers' patrols return with important news: Russians in force, cavalry with strong artillery, are reported east and north of Olejow. The advance of Russians, via the Berimowka heights, is also reported. Zborow is free of Russians, but neither have elements of the 11th Inf. Div. reached that town. Now von Zaremba realizes that he has advanced too far. While he is still considering the reports, another one reaches him to the effect that Russian cavalry and artillery have already occupied the Berimowka Hill and that the guns may be expected to open fire at any moment.

Imagine the situation:

The 4th Cav. Div. is out in the open, in anything but a favorable place for either defense or attack. Hills 418 and 416 have been left behind, cover is not available and, in column on the open plateau, the Austrians must be seen by the Russians on the Berimowka. Von Zaremba is now forced to invert his front, a very difficult and dangerous maneuver in the face of the enemy. However, his troops are well trained, and his orders are carried out with precision. The batteries take up the indicated positions and, in doing so offer splendid targets to the Russians. The four cavalry regiments are still wheeling about when the last of the reconnaissance patrols arrives with the dire news that Russian gunfire may be expected any minute. The time is now 9:00 A. M.

Von Zaremba must have wished that he had never left Hill 418. He now issues orders to reoccupy it and orders the 35th Landwehr to that hill and to also occupy the Lipnik farm. The infantry falls in, ready to move back. The cavalry and artillery are disposed about the village of Jaroslavice. The guns are posted about 550 yards south of the village, east of the highway. On the right, in echelon, are the Uhlan regiments. On the left, behind the batteries, in double column, with sufficient intervals for rapid deployment, are the 15th Dragoons. The 9th Dragoons are on the march toward the eastern end of Jaroslavice. Everything is moving, except the infantry which has just fallen in. It is a veritable beehive of activity, right under the eyes and noses of the Russian batteries on the Berimowka heights. And, naturally, at this moment the storm breaks.


0 1 2 3 Km
1 Mile
Russians Ringed in.
to 6:30 A.M.
to 8 A.M.
9 A.M.
10 A.M.
Seret
Nuszcze
Mackowy Gaj
Harbuzów
Hunting Lodge
Hnidawski Farm House
Dabrowa Farm House
Perepelniki
Zaluc
Huczka
349 1st and 2d Bn 35th Lw.
Troscianiec
Kruhla
Hunting Lodge
Mogitka
Dworzyska
Iwaczów
Hukalowce
Topuszany
Advance Guard 9th Russian Cav. Div.
Wolczkowce
A 4th C.D.
418
Lipnik Farm
15th D.
35th Lw.
1st Bn
Olejów
Band 1 troop 9th Russian Lancers
13th Uhl.
2 Batteries & 10 A.M.
Farm Bezodnia
Bezehuta
401
1st Uhl.
2d Bn
Jamny
416
1 Platoon 35th Lw.
Wolkowce
15th Drag.
409
4382
Hunting Lodge
9th Dragoons
Kazimirowka
Jarostawice
Mackowa Ga.
9th Drag.
Strypa
Bath. 3.
15th Drag.
Bath. 1.
428
Berimowka
Gen. Markoff's column
10th Div.
13th Uhlans
Monitowka
1st Uhlans
Gen. Chytrow's column 10th D.
Ostry Garb 4241
Meteniów
Kabarowce
Beremowce
15th Dragoons
401
4th C.D.
385
Zlota Ga.
4 Sotnias Orenburg Cossacks
Toll Station
Railroad Station
Kudynowce
10th Russian Cavalry Division
Mszana
2 Troops 10th Russian Dragoons
Grabkowce
Mtynowce
Zborow
Kudobince
1 Troop 10th Russ. Lancers
383
Popowa Ga.
Zukowce
Scianka Woods
1 Troop 10th Russ. Hussars
382
Mszana Farm house
N
Railroad
Presowce
Korszytów
Tustoglowy
Podhajczyki
Wotosowka
Zborów
Jarczowce
B.v.B.

Not only from the Berimowka heights, but also from the wooded heights east of Olejow, Russian guns begin to thunder. From the woods north of Olejow and from the direction of the Berimowka chain of hills sounds the staccato of Russian machine guns. Caught under a hail of machine gun bullets and shrapnel, the men of the 35th Landwehr break. Troops which have fought valiantly before and which are to fight bravely later during the war, now run like frightened rabbits, discarding their equipment. Only the advance guard, taking cover, engages advancing units of the 9th Russian Cav. Division. Most of the advance guard either die where they stand or are taken prisoners; none come back.

Although the Russians' gunfire was shifted to bear on the cavalry units, the losses of the mounted men were only slight. The discipline of the cavalrymen was far superior to that of the infantry. They did not break. Runaway led-horses of the M. G. Det., 1st Uhlans, caused a slight panic which was quickly subdued, and soon the four regiments were reassembled in the valley of the Strypa, east of Wolczkowce, where cover was available. The batteries had been able to exchange a few shots with the Russians. (Austrian batteries had only 4 guns, the Russians 6.)

The guns now had taken up positions on a low hill, southeast of Wolczkowce, and with their 8 guns took up an unequal duel with 18 to 24 Russian pieces. The well executed Russian surprise attack had forced von Zaremba into a position which proved his undoing. To the left he had the swampy lowlands of the Strypa, to his right were the hills, containing Hill 418; beyond that was the narrow plateau which, *unknown to him*, the head of Count Keller's 10th Cav. Div. was about to enter, approaching through the various folds in the undulating terrain.

Those readers who are familiar with the topography of the terrain north of the Kaw River, where Camp Funston stood in 1917-19, can easily picture the scene of the conflict. The hills about Jaroslavice were about twice as high as the knolls north of Camp Funston. But—the same folds in the terrain, as there, are typical of the country about Jaroslavice.

Incredible as it may sound, during the following maneuver of his 4 cavalry regiments, both Brigade Commanders, with their staffs, *were with the general commanding the division.* The regimental commanders were left to their own resources and, as we shall see later, did not exactly act in a manner which would have coordinated their movements.

As stated before, von Zaremba had issued (verbal) orders to reoccupy Hill 418, also Jamny Hill. With him, the saving of the mounts was always paramount. For this reason his order included an admonition to "take care of the horses." The 1st Uhlans were now moving northward. The difficult terrain brought this regiment not, as intended, directly behind Hill 418, but to a large farm, situated about 2000 yards northeast of Wolczkowce. The Uhlans lined up, facing east. The 9th Dragoons joined them there, lining up behind the 1st Uhlans, also facing east. The 15th Dragoons had, at first, followed the 1st Uhlans, using a narrow country road which was teeming with infantrymen in the process of reorganization. This road leads directly to the crest of Hill 418. I walked the whole length of it and wondered how it was possible to use it in the manner described. It is very narrow, and a column of infantry, in column of squads, would fill its width. The dragoons got as far as the bottom of Hill 418. There, the infantry blocked further progress. A detachment of the 35th Landwehr was dispatched toward Lipnik, thus making room for the Dragoons, who now began to wheel into line and ascended the slopes. At that moment the 13th Uhlans galloped past. Relieved as artillery support (the guns were changing positions once more) the Colonel of the 13th Uhlans, without direct orders and probably acting on intelligence received that strong enemy cavalry was moving on Wolczkowce, intended to gain the Russian right flank by a gallop to the north. The intelligence was wrong. (Another case of insufficient reconnaissance and acting on hearsay without checking up. As we shall see, this Colonel's unpremeditated action contributed to the loss of the engagement). The first squadron, emerging on the plateau east of Jaroslavice, saw no Russians and galloped on, northward. The second squadron, commanded by Major Vidale, troops C and A, perceived the main column of the Russians 10th Cav. Div. (10th Dragoons, 10th Lancers) emerging from a fold in the terrain. Major Vidale immediately attacked, hitting the Russians in the left flank.

The Austrian Division Commander with his staff *(both Brigadiers with their respective staffs were still with him!)* also caught sight of the Russians at that very moment. In fact, he had just received the news of their immediate vicinity. Von Zaremba caused his staff trumpter to sound the call "To the attack!" Behind him, the 15th Dragoons were coming up the wooded slopes. The troops' trumpeters took up the call (Austrian regulations) and, with Troops A, D and F in line, Troops B and E in echelon on the right and left, the 15th Dragoons got over the crest onto the plateau. At the head of the Dragoons, two Brigadier Generals and one Colonel Brigadier, with their staffs, rode, with drawn sabres, to attack the Russians. Not one of those staff officers ever thought of advising or sending word to the other regiments of the impending action. Von Zaremba had believed that his bugler's high-pitched trumpet would be heard by the 1st Uhlans and the 9th Dragoons, and, very likely, his staff officers shared his belief. At any rate, 12 troops were kept idle within striking distance, and nobody ever thought of issuing the absolutely necessary orders. However, the other two regiments did not participate, because they could not hear nor see from where they stood.

Both parties, after the clash, retreated, after a flank attack by superior Russian forces had caused the Austrians to leave the field with the loss of their 8 guns, mired in the swamp. On retreating, von Zaremba tried to rally his division but was prevented from doing so by the Russian artillery which had been brought forward. On the morning of the 22d of Au-

gust the 4th Cavalry Division was assembled again behind the Bug River and two days later, near Krasne, was ready for renewed action. The Austrian losses were considerable.

The movements of Count Keller must be cited here. Count Keller had crossed the Galician border, marching south of and parallel to the 9th Russian Cav. Div., near Kurniki and Wertelka, on the 20th of August, 1914. His men bivouacked during the night in and about Bialaglowy. Count Keller had orders to make a reconnaissance toward Zborow. His own orders were to that effect, and so he leisurely proceeded westward. Knowing that the 9th Russian Cav. Div. was on his right, he did not send out combat patrols. Of his Brigadiers, General Markoff also failed to send out patrols. The other Brigadier, Gen. Chytrow, dispatched two troops of the 10th Dragoons toward Zukowce, one troop each of the 10th Lancers and 10th Hussars toward the railroad and 4 sotnias of the Orenburg Cossacks had orders to conduct a reconnaissance toward Zborow (where the Russians believed the 4th Cav. Div. to be) and to destroy the railroad. If we consider these dispositions in their true light, the Russian General was just as negligent as his Austrian opponent. None of the Russian patrols found nor located the 4th Cav. Div.

When the Russian column neared the Beremowka heights, it was Markoff who sent out patrols. These also failed to see or hear the Austrians. *The dust cloud above von Zaremba's marching column disclosed the presence of Austrian troops to Markoff.* Naturally, when the Russians gained the heights, they could see the Austrians before them. After that, it was easy to make the necessary preparations. And still—when Vidale attacked, Count Keller was just as surprised as von Zaremba. The rifle fire which Count Keller had heard gave him the impression that Prince Begildejeff's column had met the Austrians. For this reason the direction of Count Keller's march was changed to the northward. It is more likely that, had Count Keller marched further westward, Austrians and Russions would have passed one another, not knowing about the close proximity of the enemy.

However, the negligence of Count Keller, expressed by the absence of combat and reconnaissance patrols, his personal conduct during the night of August 20th at Bialaglowy, is a sufficient reason to conclude that his success in the action was more due to luck than to good management.

Let us return to the morning of the 21st of August, 1914. Let us assume that the 4th Austrian Cavalry Division is commanded by a General who has learned somewhere those principles of command which subjugate tradition to ordinary common sense. Let us also presume that the Brigade Commanders and the staff officers operate in accordance with the same military doctrine.

My guide, once an Austrian officer, told me that von Zaremba's and the other officers' action in placing themselves at the head of the attacking 15th Dragoons was actuated not only by Austrian tradition but also by an assumed effect on the troopers' morale. Be that as it may, Austrian officers, as military history recounts, have always been noted for personal bravery. But personal bravery must take a backseat when the success of an action depends on the issuance of proper orders for that action and personal and direct supervision of the Commanding General of all troops at his disposal.

All elements for a tactical and strategical success were given, yet von Zaremba missed a decisive victory because

(a) he failed to await the results of his reconnaissance which, in itself, was not very well planned,

(b) he failed to estimate the situation before making his dispositions, which, as we have seen, were really made on the spur of the moment and as the result of faulty intelligence,

(c) he failed to issue the necessary orders which would have led to proper liaison between all of his units,

(d) he permitted his personal desire to take part in the action to cloud his judgment and

(e) because he took too much for granted and paid too little attention to facts as they were.

What he should have done was to make sure of liaison with the 8th Cav. Div. and the 11th Inf. Div. The sum-total of his information would have told him that the troops of the 11th Inf. Div. were far too tired to reach a point from where they would have been able to participate in the originally planned enveloping action. He would have made allowance for the slower moving infantry, and his own advance or actions would have been governed accordingly.

He would have, likewise, obtained information about the 8th Cav. Division's movements and whereabouts, which information would have served a twofold purpose. An attempted liaison with the 8th Cav. Div. (the one platoon, 15th Dragoons, never got there) would have disclosed to von Zaremba the approach of the 10th Russian Cavalry Division under Count Keller. A look at the accompanying map will justify this assumption. The 8th Cav. Div. was at Tarnopol. The shortest route lay through territory through which the Russians were advancing. It is obvious that combat patrols, sent out, would have either encountered the above mentioned patrols from Gen. Chytrow's column or would have ascertained the presence of Russians southeast of von Zaremba's position.

In fact, von Zaremba did not even attempt to establish liaison. He merely sent out officers' patrols *into directions where he believed the Russians to be and that belief, in itself, was founded on wrong information which he permitted to stand, unchecked and unverified.* Had von Zaremba kept in mind the field orders of the IXth Corps, he would have, at least, issued, (assuming, of course, that he had no other alternative), orders for the march, clear cut orders covering all eventualities and leaving no room for his subordi-

nates to guess at the intentions. Even that he failed to do. On the other hand, the intentions of the IXth Corps Commander were clear, and the hilly terrain about Jaroslavice offered the best possible opportunity to trap the Russians. Von Zaremba, awaiting the results of his reconnaissance, should have remained, under cover, at Hill 418. His mission, really one to attack the enemy, called for dispositions which are almost the same as for a counterreconnaissance. At any rate there should have been strong combat patrols on all highways and the country roads. The same goes for Count Keller. It is difficult to say which of the two was the greater sinner.

There are many lessons to be drawn from the Jaroslavice action. To me, the most poignant are these:

1. Proper reconnaissance and the establishing of liaison with units operating under the same orders are of paramount importance.
2. The results of reconnaissance must frequently be awaited. This does not necessarily mean "awaiting at a halt." If proper security measures are taken, the command may get ahead in the desired direction. It is largely a question of the commander not making any unjustifiable detachment of troops on missions of imagined importance nor making any unwarranted assumptions about an enemy of whose movements or whereabouts he knows nothing.
3. The Division Commander's place is at his post of command, whether in the saddle or dismounted. He has no business at the head of charging troops.
4. Proper orders must be given to all units of the command, which must not be left in ignorance of the situation. Since orders covering all eventualities cannot be given in advance, the best order, in case of insufficient information, is a march order, withouts "ifs," "buts" or "ands."
5. Reconnaissance, when carried out, should be in the hands of reliable and able scout officers or non-coms. The ill-effects of poor reconnaissance cannot be removed by subsequent assumptions.
6. Never take anything for granted. If in doubt, stay where you are until the enemy is definitely located or move with security elements properly disposed.

In conclusion, I wish to say a word about brave soldiers, who had the misfortune, at least in 1914, to be led by officers above the rank of Captain, who did not always come up to a higher standard. In the Austrian Army, the rank and file believed that the taking cover was a sign of cowardice. That no steps were taken by the Austrian staff to correct this mistaken idea of valor accounted for the tremendous losses suffered during the first months of warfare. In the Austrian Cavalry, there had always been a tendency to save the horses. Von Zaremba was one of the Division Commanders who saw red when one of his subordinates taxed the full strength of his mounts.

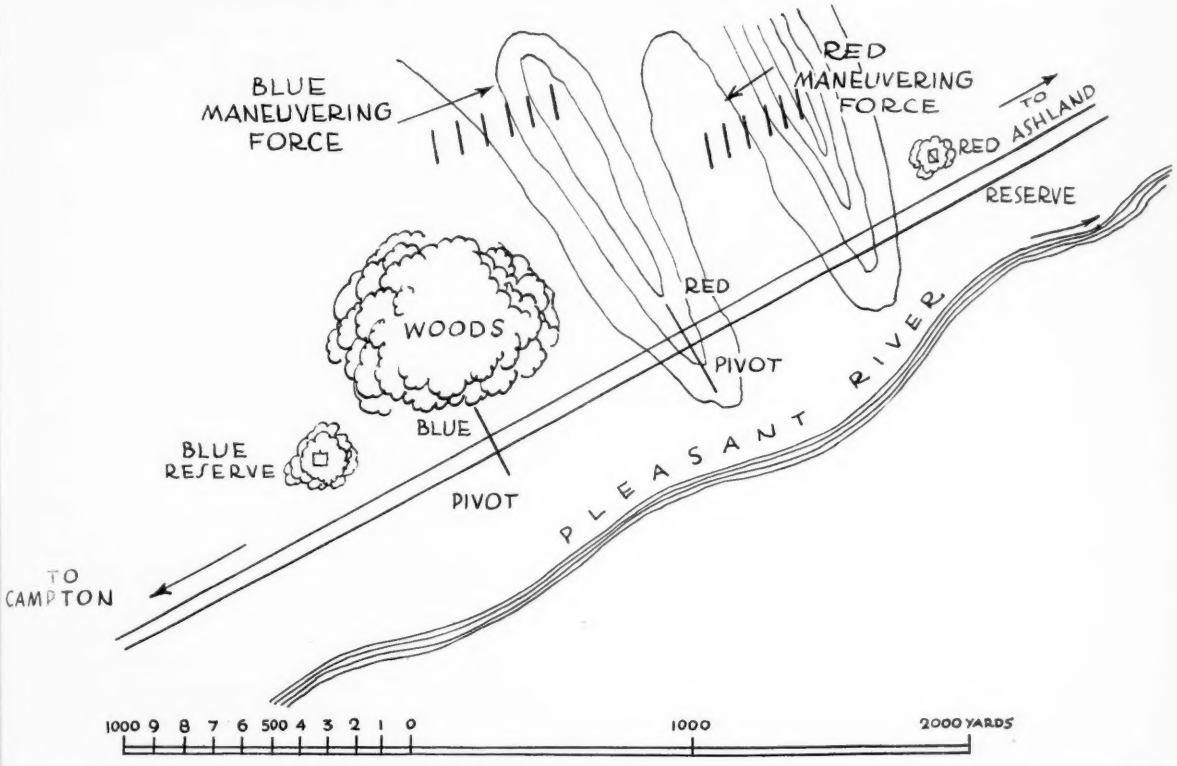
The Austrian cavalry, after Jaroslavice, did not have another chance to prove its mettle as such. Dismounted and used as infantry, they fought heroically and what Cavalryman's heart does not swell with pride when he reads of the spirited charge of the Hungarian Hussars at Limanova which decided the day in favor of the Austrians. And—this charge was delivered on foot, with the butts of the carbines used as clubs!

Of such men (so my guide insisted, and so regimental histories tell me), the 4th Austrian Cavalry Division was composed. That it met with an adverse fate at Jaroslavice was not the fault of the subaltern and the trooper. The blame rests squarely on the shoulders of General von Zaremba and his staff officers.

Jaroslavice is a glaring example of faulty leadership and a most striking exposé of a combination of errors by two opposing Generals of Cavalry.

NOTES FROM THE CHIEF OF CAVALRY

What Would You Do in a Situation Like This?



A BLUE regiment of cavalry is proceeding northeast towards an expected contact along the Campton-Ashland Road. The maneuvering flank is predetermined, since there is not sufficient room between the road and the river. The ground on the other side of the road is a fairly flat plain with occasional ridges and isolated hills.

Contact is established. Colonel O. Howe Mobile reinforces the advance guard troop with the machine gun troop and thus builds up a very satisfactory pivot of maneuver. He retains a troop of the leading squadron as reserve.

Colonel Mobile does not devote a great deal of time to personal reconnaissance. The enemy's right is, of course, indicated as the objective of any turning movement. He has even been tempted to have the maneuvering force detach itself from the column as soon as firing might be heard to the front. However, he has compromised by having the commander of the squadron already designated as the maneuvering force with him during the march towards contact. A glance to his left now satisfies him that there is sufficient cover to screen the movements of the maneuvering force from enemy observation.

Colonel Mobile now turns to Major Marshal Ney Whinney and orders him to move out with his squadron against the enemy right. He tells him to make a considerable detour, disregarding the dismounted pivot, and to attack the supporting troops. The Red force is known to be composed of a regiment of cavalry.

Major Whinney moves off to carry out the familiar maneuver. He decides to proceed across country in column of platoons as foragers, with increased platoon distances. The squadron moves at a sharp trot, with a covering force of scouts well in advance. The ground is fairly open; at least, it gives the general impression of a plain. This is rather deceptive, however, because at a distance horsemen can hardly be distinguished on account of brush and folds of the ground.

Suddenly, as Major Whinney is topping a rise, he sees several of his scouts galloping back from the front in great haste. They had evidently met the enemy at the top of a ridge about 1000 yards distant. Enemy cavalry is now pouring down the slope in a formation that appears to Major Whinney to be similar to that of his own force, except that the enemy front is not covered by scouts. The leading elements are at a distance which Major Whinney estimates to be 600 yards.

Without a moment's hesitation, Major Whinney gives the command, "to fight on foot."

Would you have done the same? And, if not, why not?

(For Discussion, Turn to Next Page)

Solution

Major Whinney should keep his command mounted. He could take a brief moment to allow his command to close up and to see whether the enemy column alters its direction. If it does not, the advantage will be Major Whinney's, of course, since he can then fall on the enemy's flank. In any case, he should be able to make a successful mounted charge, because the downward slope will favor him. The ground, being rough and obstructed by bushes, is not adapted to a charge in close order with the saber. So, Major Whinney would do well to retain the dispersion as foragers and to attack with the pistol.

Discussion

Six hundred yards is about one-third of a mile. If the enemy changes direction upon seeing the head of the Blue force and moves upon it at the extended gallop (16 miles an hour) at once, the leading horses will cover the distance in a minute and three-quarters. This is too short a time for the Blues to dismount and form an effective firing line. The enemy will be on them before a large proportion of the riflemen are in position to fire. The light machine guns will not have a chance to get settled and functioning smoothly.

The formation (column of platoons as foragers) is a very good one for advancing across country, but it is not favorable to dismounting to fight on foot. In fact, before giving this command (assuming that the situation had favored dismounted action), the major should have caused his command to form line of troop columns, or of platoon columns, since column of fours is the normal formation for dismounting to fight on foot. One may conclude that it would have been better if Major Whinney's squadron had already been in line of troop columns or of platoon columns; many prefer this formation of a maneuvering force as being most adaptable to any contingency, since the men can dismount to fight on foot without preliminaries and since column of platoons can be formed from it in a short space of time, if mounted action is indicated. Of course, under modern conditions, this formation would not be the line of troop columns of the drill ground but would be opened out so as to be of slight vulnerability to surprise fire and attack from the air; that is, there might be 25 yards distance between fours and 5 yards interval between troopers.

But, even if the squadron had been moving in line of troop columns, there would not have been enough time to form an effective firing line before the arrival of the enemy, in case he moved aggressively. And the only safe assumption is that he will so act. In any event, it is best to stay mounted when in such close proximity to a mounted enemy.

Carry On

ON account of the personnel requirements of the Civilian Conservation Corps, the classes at the Cavalry School were graduated on May 22, 1933. The Chief of Cavalry, who was unable to be present at the graduation exercises, sent the following letter to the Commandant and a message to the graduates:

WAR DEPARTMENT
Office of the Chief of Cavalry
Washington, D. C.

May 17, 1933.

Brigadier General A. G. Lott, U. S. A.,
Commandant, The Cavalry School,
Fort Riley, Kansas.

My dear General Lott:

I am inclosing herewith a couple of copies of remarks I would like you to please bring to the attention of the command at the Graduation Exercises, or by any other means that you consider proper. Many things, such as the reduction of pay, rumors of loss of officers, failure of banks and general depression, have done much to undermine the morale of the Army. From reports which have reached me I am of the opinion that the Cavalry has been less affected than the rest of the Army as a whole. I believe that this is due to our high basic esprit and the activity and leadership of our senior officers.

However, a word of encouragement from the Chief of Cavalry to the members of your command, and especially the junior officers and married enlisted men so harassed by financial difficulties, I believe will do no harm. All of this class must do double duty if they remain at home and strange and very difficult duty with separation from their families, if they go with the C.C.C. Duty with the C.C.C. will require the highest type of manliness and leadership, separation from families and frequently living in isolated places. The duties will be hard and the trials many. Little will be seen of the great staff and supply problems with which the Army is confronted in its recruitment, organization and transportation of 275,000 men between now and July first. This requires the reception at the rate of 8,500 per day which is greater than the combined average of the Army and Navy during the World War—and this all done with little preliminary planning and under many difficulties, making it truly unequalled but in few military compaigns.

Wishing you all the greatest success and expressing my thanks for the excellent work done by the school during the past year, I remain

Yours very sincerely,

GUY V. HENRY,
Major General, U.S.A.
Chief of Cavalry.

I have asked the Commandant the Cavalry School to express to you my disappointment at not attending your Graduation Exercises. The date of these exercises has been advanced because of certain duties delegated to the Army by the President as a result of a serious national emergency—an emergency far reaching and much harder for the soldier to face than that of war. The Cavalry has always been proud of its esprit, loyalty and courage, and I have never yet come in contact with a Cavalry command where these virtues were not outstanding. Let's keep them so, you men and women of the Cavalry, during these difficult days with their many depressing and ofttimes unfounded rumors

Go to your new stations—and for many of you to your strange and untried duties—with the courage, stamina and determination of the Thoroughbred horse we all love so well. Let him be your example in the days ahead; if you do, it will make a hard road easier. You will not join the ranks of the "complainers;" you will retain your self respect and show the spirit of true Cavalry leadership so well exemplified in the mottoes of the 9th and 13th Cavalries—"WE CAN—WE WILL" and "IT SHALL BE DONE."

The spirit of these mottoes the Cavalry relies on you to follow and the best wishes of the Chief of Cavalry go with you.

GUY V. HENRY,
Major General, U.S.A.,
Chief of Cavalry.

State and Regional Small Arms Competitions, National Rifle Association

ALTHOUGH confronted with the loss of the Camp Perry National Rifle and Pistol Matches for the second consecutive year as a consequence of the government's farflung economy program, the rifle and pistol shots of the Regular Services, National Guard, Reserves and other units of the national defense, as well as the shooters from civilian ranks, will not be deprived of their annual battle for the national championships and trophies of the National Rifle Association.

The rifle association will in a sense bring Camp Perry to the door of those shooters whose penchant is for .30-caliber rifle and pistol and revolver competition. This will be accomplished by the holding of state and regional meets, now in process of organization, which will eliminate long miles of travel by the contestants.

All the N. R. A. championship trophies, rated as the finest collection of trophies of any sport in intrinsic, historic and artistic value, will be placed in competition from the Wimbledon and Leech cups, which have been contended for annually since 1875, down to the latest of awards. The championships and winners of the trophies will be determined on the basis of scores fired at all the regional and state tournaments. This plan differs materially from the system followed last year when the government's pruning axe first nipped off the Camp Perry matches. That year the National Rifle Association sponsored regional matches but assigned certain of the trophies for exclusive competition at certain of the shoots. The Wimbledon cup, for instance, was assigned the Sixth Corps Area shoot, and only those marksmen who competed at that meet were eligible to win the trophy even though others of the sectional shoots included the firing of the Wimbledon cup course on their program.

Only the small-bore rifle shooters will have one central tournament all their own. The small-bore championship matches will be a complete national affair and will be held at Camp Perry from Monday, August 28, to Labor Day, September 4. The rifle association has awarded all its trophies in this field of marksmanship contests to the Camp Perry meet and all aspirants to the honors in the .22-caliber competitions will have to fire their scores at that shoot. Prospects are that virtually every state of the country will be represented in the matches.

The high-powered rifle ranges at Camp Perry will also see much action, for one of the state .30-caliber championship meets has been slated for there beginning August 26 and continuing through August 28, the day on which the small-bore activities will get under way.

No complete national shoot was held at all last year. A small-bore shoot was held at Camp Perry, but it was strictly a regional shoot, and only a portion of the small-bore trophies were allotted it, the others being apportioned among other regional tournaments.

The President's Match will undoubtedly be the most popular match in the state and regional .30-caliber rifle meets. It is the richest of all American matches in point of awards and it determines the makeup of the "President's Hundred," a group that all shooters are zealous to attain. The 100 high riflemen in this event comprise the "President's Hundred," and each is presented with a distinguishing insignia which every winner finds cause to cherish.

The oldest of the trophies for which the marksmen of the country will battle is the famous Leech cup, competed for at 800, 900 and 1,000 yards.

Next in point of age and historic interest is the Wimbledon Cup. The course of fire for this trophy is 20 shots at 1,000 yards.

Other .30-caliber rifle and pistol trophies which will claim the attention of the contenders this year are:

Maj. Lee O. Wright statue, presented in 1925 by Maj. K. K. V. Casey in memory of Major Wright and awarded in the N. R. A. grand aggregate.

Camp Perry Instructors' trophy, presented in 1918 by the Camp Perry Instructors' Association.

Coast Guard trophy, presented in 1930 by the Coast Guard and awarded to the winner of the Coast Guard rapid-fire match.

The Crowell trophy, presented in 1925 by Benedict Crowell, a past president of the National Rifle Association and a former assistant secretary of war.

The Marine Corps Cup, presented in 1909 by the officers of the Marine Corps.

The Scott trophy, presented in 1925 by Col. Frank A. Scott.

The Navy Cup, presented in 1923 by the U. S. Navy.

The Herrick trophy, presented in 1907 by the late Myron T. Herrick, a former governor of Ohio and ambassador to France.

The Infantry trophy, presented in 1922 by the U. S. Infantry.

The Enlisted Men's team trophy, presented in 1910 by the enlisted men of the Marine Corps.

The Rumbold trophy, presented in 1910 by Brig. Gen. Frank M. Rumbold.

The A. E. F. Roumanian trophy, presented in 1919 by the Roumanian government at the inter-allied rifle competition in France.

The Col. Gilliard H. Clarke pistol trophy, purchased in 1928 in accordance with a bequest of Capt. Edwin H. Clarke. (From Official Release, National Rifle Association.)

BOOK REVIEWS

TSCHIFFELY'S RIDE—A. F. Tschiffely—Simon & Schuster ($3.00).

This is the story of a ride on horseback from Buenos Aires to Washington, D. C.—probably the longest journey of the kind ever made. It is a modern Odyssey that far outshadows some of the classic adventure of earlier times.

For nine years Tschiffely was a schoolmaster in an Anglo-American school in the Argentine. During this period he developed a profound admiration for the native Creole horse, and soon the idea of testing his courage and endurance was born. This idea developed into a determination to attempt to ride from the capital of the Argentine to New York City. Such an experience would also give relief from the long months of monotonous schoolroom duties.

Tschiffely's only companions on this adventure were two sturdy Argentine Creole horses—*Gato* (the Cat) and *Mancha* (the Stained One)—"thoroughbred in nothing except courage." They were 16 years old when they started,—almost 19 when they finished.

Tschiffely's trail took him through the Argentine, three times across the Andes, through Bolivia, Peru, Ecuador, Colombia, Panama, Costa Rica, San Salvador, Guatemala, Mexico, across the Rio Grande at Laredo, thence to St. Louis and, finally, to Washington. His original plan of finishing his ride in New York City was abandoned after two fairly serious accidents with motor cars. These decided him not to further expose his horses to such danger. In this long trip two short stretches were necessarily made by boat, —one from Cartagena to Colon, because of impassable swamps; and the other to sidestep a revolution in Nicaragua.

Tschiffely and his two pals travelled 10,000 miles over every conceivable kind of terrain: thrice across the Andes, sometimes on narrow ridges three miles high; over swamps and deserts and through tropical jungles. For thirty long months they worked their way northward. Once mistaking the trail in the dark, he unwittingly tried to force his mount over a precipice. Dismounting and striking a match to see why the animal would not go forward, a ripple went down his spine when he discovered that the animal had saved him from a fall of hundreds of feet. On another occasion, while crossing Ecuador, he heard that part of the trail had been swept away by a landslide and was warned that a man and his mule had fallen down trying to cross. A detour would have taken two or three long days and as he had some doubts about the truth of the report, he decided to go and see for himself. When he reached the spot a glance at the broken off rock, some eight feet, convinced him that it would be running too big a risk to try to jump the gap. There was no alternative but to return and make the detour. *Mancha* was the saddle horse that day and was in front. *Gato's* pack needed adjusting and Tschiffely was working on this when he noticed *Mancha* moving toward the spot where the trail was missing. Before he could stop him *Mancha* jumped and landed safely on the other side. "My joy," writes Tschiffely, "at this ticklish feat soon changed into consternation when I realized our real situation. Here was I on one side with *Gato* while *Mancha* was on the other as unconcerned as if nothing had happened: as if he had only jumped across an arroyo in the pampas and not across a gap where he would have fallen down several hundred feet if he hesitated or slipped. We all know that an eight-foot jump is not much for a horse; but then the place and uneven nature of the trail had to be considered—not to mention one's nerves—and there was no time for much thinking; so I tied the pack horse to a loose rock and jumped across to do the same with the other lest he continue his dangerous wanderings. Now the question was as to whether it would be safer to bring back one animal or to cross the other. After a good look at the trail I thought the latter way would be the safer. I unsaddled *Gato* who jumped across like a goat, after which I brought the pack and saddle over by means of a rope, having to cross from side to side several times to accomplish this primitive and ticklish piece of engineering. Another fright, a good lesson and many miles saved."

After resting some time in the United States, Tschiffely returned by sea to Buenos Aires with *Gato* and *Mancha,* who are now enjoying old age on their native Argentine pampas.

The book is written with natural modesty and without attempt at literary style, but is gripping from start to finish.

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RIDING REFLECTIONS by Piero Santini, Captain, Italian Reserve, The Derrydale Press, New York, Price $10.00.

Riding Reflections by Captain Piero Santini will be welcomed by horsemen who desire an accurate description of the Italian riding seat. While the Italian method has had a decided influence on our form in jumping and cross country riding, this, we believe, is the only book published in this country giving a complete description of the Italian seat.

In his preface, the author says, "all I have attempted is to jot down certain reflections—based on principles of equitation that have by now stood the test for years —for the correction of current defects and misconceptions regarding riding position in those past the tyro stage and therefore not in need of primary instruction."

In the opening chapter the author traces briefly the origin of the forward seat and its influence on riding methods throughout the equestrian world. He then

in a chapter on the Geometry of the Forward Seat, gives "a clear conception of what the forward seat really consists in." He describes the rider's position in every detail: first ankle, knee, loins, shoulder blades, then arms, fingers and wrists. He very properly lays great stress on proper position of the knee as the basis of a good seat. The reader easily understands the clear concise description given. Simple diagrams are used to "explain mechanically the gist of theories difficult to make clear without practical demonstrations." These, together with numerous excellent and well chosen photographs, give the reader an exact knowledge of what the Italian seat really is. The author points out common errors in form committed, either through misconception or lack of proper training, and uses illustrations to show these faults. Instructors in equitation can learn much from this part of the book that will assist them in imparting instruction.

According to Santini, contact with the horse's mouth should be "continuous, not intermittent." He believes that all jumping should be done without wings, because the rider is obliged to maintain contact or suffer a possible runout.

The use of hands and legs to best assist the horse in jumping is discussed very carefully. During one stage of the jump he advises "increasing the contact ever so lightly." Maintaining light contact during this stage of the jump would be better for most of us, we believe.

Captain Santini gives his ideas on bitting, bridles and martingales and describes the saddle suited to the forward seat. He discusses horseshows, steeplechasing and hunting.

Riding Reflections is especially well written, interesting, easy to read, and most instructive. It is very highly recommended to those who are interested in cross country riding, jumping or hunting.

A. P. Thayer,
Major, Cavalry

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The Horse and His Schooling. Lieutenant Colonel M. F. McTaggart, D. S. O., Charles Scribner's Sons, Price $2.50.

To make a good hunter or hack is Colonel McTaggart's object, his contention being that a systematic training or schooling produces a softer, more elastic horse than the haphazard methods generally employed. The correctness of this is axiomatic, but it is equally an axiom that incorrect school work will make the horse a fussy, unpleasant ride.

The author has rightfully started by taking advantage of the horse's natural characteristics; by requiring the horse to do only those things that his physical development allows him to do easily; to proceed from the simple to the complex. Two excellent points often overlooked or neglected by so-called experienced trainers; never work a horse when he shows the least indication of unsoundness; never proceed with a lesson under excitement but restore calm and give him a chance to think it over. Stable hints and many schooling axioms are excellent.

Colonel McTaggart has over-emphasized "the balanced position." He has required the horse to go into an attitude for schooling which is correct for collection and the balance of slow gaits but he has apparently left the horse there for his habitual carriage. This is quite wrong, as it destroys the vital function of extension and flexibility. In other words, the moment a horse loses the desire to extend and lower his head and neck (softly to the give of the rider's hand), his efficiency in increasing his stride is greatly diminished; he does indeed become a hobby horse unfit for free elastic galloping. Again the use of the spur has been called useless in schooling and an abomination in jumping. In all of his reference to leg Colonel McTaggart contemplates use thereof too far to the rear. In so doing he would irritate and close up his horse. Correctly used, however, the spur is a necessary adjunct, not for habitual use but to be called upon for brilliance or obedience when the horse fails to respond to the leg.

In his chapter on jumping a species of hand riding has been advocated. For years this has been a basis for argument. Whenever great horses have been assembled, free galloping relaxed horses have generally won, whether it be the show ring, hunter trial or hunters in the field. The hand ridden horse either becomes too dependent on his rider, learns to stiffen or fails to respond when response means a great deal. The free going, soft horse on the other hand nearly always works out his own problem better and, when the emergency occurs, is more apt to pay attention to his rider's indication and accept the help that his rare mistake has made necessary.

To utilize this work as any guide for *dressage* competition would be useless. For helpful hints for softening and rendering obedient a hunter or hack it has merit, remembering always that a vital principle of extension has been intentionally or accidentally neglected.

John T. Cole,
Major, 9th Cavalry

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Cross Saddle and Side Saddle, by E. V. A. Christy, J. B. Lippincott Co. $5.00.

This is essentially a book for the beginner, but it may be read with interest and profit by the horseman or horsewoman of experience.

The author has observed that the art of riding is no longer taught by one generation to another as it was to such a great extent before the war. Social and political changes have made riding a much more incidental recreation, and, accordingly, the beginning rider gleans his knowledge of the sport from very casual sources, a situation which the author greatly deplores,—hence "Cross Saddle and Side Saddle."

Beginning with an interesting chapter on "Character Building By Horsemanship," the book carries the reader through the entire field of beginner's horsemanship. The cross saddle, the side saddle, the common types of bridles are explained and the novice is shown how to put this equipment on the horse. The meat of the book is contained in the five chapters on horsemanship proper. In these the author shows a very sympathetic understanding of the problems confronting the beginning rider, an understanding undoubtedly

based on a wide experience as an instructor. The chapters on "Horse Psychology" and "Personality (Rider's) and Hands" are particularly interesting.

Throughout the book the author has considered the cross saddle and the side saddle in relation to each of the problems of horsemanship. This is done by enclosing those parts of the text which apply to the side saddle rider in black horseshoes. The side saddle rider will find the book an excellent text on this method of riding, particularly in the chapter written on the comparison between the cross seat and the side seat.

In keeping with the idea of covering the entire field of beginner's horsemanship, the author has covered such incidental subjects as riding clothes, rules of the road, opening and closing gates while mounted, etc. The work is concluded with a glossary of technical terms.

"Cross Saddle and Side Saddle" is profusely illustrated with excellent photographs. It contains a foreword by Sir Charles Frederick, Bt., sometime Master of the Pytchley. While in no sense a text for the advanced student of horsemanship, and in some particulars differing from the accepted schools of equitation, this work is well worth while and fills a definite need, particularly with the cross saddle rider.

KRAMER THOMAS,
Major, Cavalry

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AN EYE FOR A HORSE, by Lt. Col. Sidney G. Goldschmidt. Charles Scribner's Sons. $2.75.

Lt. Col. Sidney G. Goldschmidt has succeeded in his latest book, "An Eye for a Horse," in placing before horsemen information of considerable value and interest. Although most any author might in his enthusiasm to present the facts to his readers have written an instructive but uninteresting text, Col. Goldschmidt has steered a far different course, for he has adopted a pleasing style and included many anecdotes and stories pertinent to the point involved. The result is a book extremely easy to read, in which the reader absorbs many important facts without realizing it.

From "Some Experiences of an Irish R. M," by E. E. Somerville and Martin Ross, Col. Goldschmidt in the front of his book quotes: "Bernard stared at the horse in silence; not the pregnant and intimidating silence of the connoisseur, but the tongue-tied muteness of helpless ignorance." I doubt very much that there exists any person who flatters himself or is flattered by the name horseman who did not at some time in his career find himself embarrassed in a predicament similar to Bernard's. This condition Goldschmidt is endeavoring to correct, for it is to the young and inexperienced horseman that this book is mainly addressed, although the most experienced will find a point here and there to add to his knowledge.

The book in reality is a guide for buying and judging saddle horses, and to the author, for saddle purposes, there is only one horse—the thoroughbred. That there may be no misunderstanding here, he tells us early in his book that, "We must therefore consider a broad definition of a horse best suited to his task and for saddle purposes, this is the Thoroughbred and the more weight his make and shape fit him to carry, the better." Again, "The thoroughbred is the flat Race Horse, the Hurdler and the Steeplechaser. He also makes the best Hunter, the best Polo Pony, Hack and, when not too big, Charger also. As said before, he should be the only animal used for saddle work."

From a chapter on the history of the Thoroughbred horse which the interested reader will find all too short, the author deals with the following subjects: Factors that govern temperament; Quality and Material; Leverage and the bony frame; General survey of the horse from five points, a view from both sides, from the front, from the rear, and a trial in the saddle, called by the author a "cold ride" or trial where the purchaser cannot ride the prospect to hounds or play a period or two of polo; Survey of the horse in movement and the final procedure in closing the deal. In addition, there are two appendices, one devoted to the foot and the other to the age of the horse indicated by the teeth.

This should be a book of particular interest and value to our young officers of the mounted services, for, in order to be good all around horsemen, they should be able to judge horses as well as ride, care for and condition them. C. DEW.

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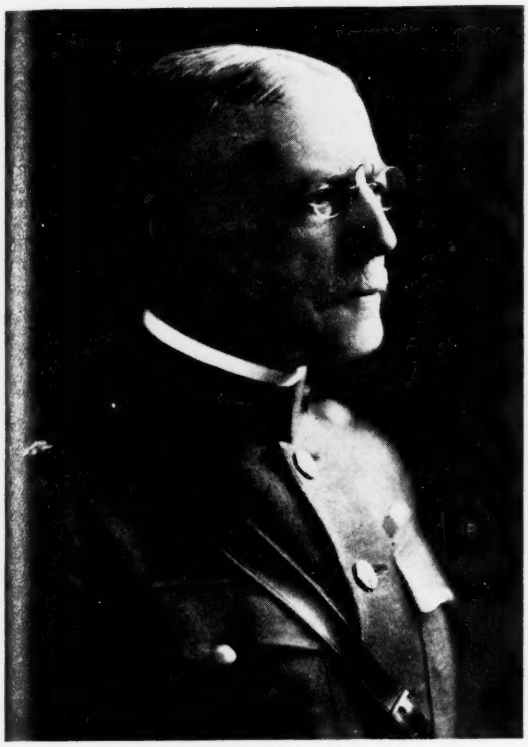
A MACHINE GUNNER'S NOTEBOOK, by 1st Lieutenant William P. Campbell, 14th Cavalry, $1.00.

Every machine gun officer and noncommissioned officer has felt the need of a machine gun notebook. Such a book is extremely useful as a handy reference in the troop N. C. O. school, on the drill ground and during field exercises and maneuvers. If the N. C. O's. of machine gun troops are furnished individually with pocket size notebooks, it is surprising how quickly they become thoroughly familiar with the art and science of machine gunnery.

The notebook has been revised, and the following items added:

Table of Organization, Machine Gun Troop, Cavalry Regiment
Machine Gun Troop Echelons (Forward, Rear), Road Spaces
Machine Gun Drill and Combat Signals
Antiaircraft Data
Machine Gun Position Requirements
Work Sheets for Indirect Laying
Searching Reverse Slopes
Description of Parts, B. M. G. Tripod
Mechanism in Rear Position
Diagrams of Assemblies
Table of Range Equivalents
Parts Carried in Spare Parts Chest, B. M. G.
Tools and Accessories Carried in Spare Parts Roll, B. M. G.
Ammunition Allowance—C. of C. Table
Plate—Phillips Pack Saddle
Special Equipment Carried by M. G. N. C. O's
Fire Control Equipment
Plate—Basic Individual Equipment

A Tribute to General Charles King



Gen. Charles King was buried with military honors, state troops escorting his body to St. Paul's Episcopal Church, in Milwaukee, where services were held on March 20. Gov. Albert G. Schmedeman, of Wisconsin, was present. Maj. Gen. Frank Parker, Commanding the 6th Corps Area, and members of his staff; Col. James M. Graham, Chief of Staff; Lieut. Col. Fred W. Boschen, Corps Area Finance Officer; Lieut. Col. Joseph J. Grace, Corps Area Signal Officer, and 1st Lieut. George S. Smith, Aide, represented the Army.

The Navy was represented by Rear Admiral Wat T. Cluverius, U. S. Navy; Comdr. William H. Lee, U. S. Navy, and Lieut. E. F. Kiefer, U. S. Naval Reserve.

On March 17 papers throughout the land bore the brief announcement "General King is dead." This statement deserves more than passing notice, for he wielded a facile pen which, in the days of long ago, brought pleasure to countless thousands by his delightful stories of frontier Army life. In these he presented to the public in a way in which they would be read and appreciated, the struggles and hardships of the Regular Army in winning the West in the seventies.

He gave the public over fifty volumes of these, exclusive of hundreds of newspaper and magazine articles. Some of them were historical, such as Campaigning With Crook (1880), Famous and Decisive Battles (1884), Between The Lines (1889) and The Iron Brigade (1902). His most widely read novels were perhaps The Colonel's Daughter, (1883) and its sequel, Marion's Faith (1885). In these the hero "Jack Truscott," was in flesh and blood Lieut. George O. Eaton, 5th Cavalry, a U. S. Military Academy graduate of 1873.

In action with Apaches at Sunset Pass, Ariz., King had his right arm badly smashed by a hostile bullet and was carried from the field by Serg. Bernard Taylor, Co A, 5th Cavalry whose gallantry brought the award of a Medal of Honor. The official report reads: "Bravery in rescuing Lieut. King, 5th U. S. Cavalry from Indians."

The situation here was extremely critical and King ordered Taylor to leave him and save himself. Taylor refused and stuck to his job tho under heavy fire, while Lieut. Eaton sprinted up the mountainside with a small detachment, drove the Apaches back, and completed the rescue.

King never forgot this service and in describing it in his stories immortalized the sterling qualities of his two gallant friends.

Among King's other novels may be mentioned Captain Blake (1892) and Medal of Honor (1905). His wife (and wives are often an author's best critics) regarded his short story Captain Santa Claus as the prettiest he ever wrote. It was in 1905 incorporated by Harpers in Campaigning With Crook, but deserves a frame of its own.

General King was born October 12, 1844, in Albany, N. Y., and if there be merit in heredity he had an unusually good start in life.

His great, great grandfather, Capt. Richard King, (1718-75) was a commissary in the colonial wars at the siege of Louisbourg, 1758; his great grandfather Maj. Rufus King, (1755-1827) served in the Revolutionary War, sat in the confederation Congress; was a member of the Constitutional Convention; assisted in the final draft of the Constitution of the United States; was U. S. Senator from N. Y. for 20 years; twice Minister to England, and candidate for President in 1816 against James Monroe.

His grandfather, Colonel Charles King served in the War of 1812, was a journalist, and later President of Columbia College. His father, Gen. Rufus King was a U. S. M. A. graduate, class of 1833, resigned from the Army in 1836, became a journalist, was Adjutant General of New York; Brigade Commander during the early years of the Civil War; later Division Commander, and later Minister to the Papal States (Rome).

King's military career had an early beginning, for in official orders the Adjutant General of Wisconsin credits him as being marker in his farther's regiment (1st Wisconsin state militia) in 1856; drummer for the Milwaukee Light Guard in 1859-60, and mounted orderly in King's (Iron) Brigade Army of the Potomac in 1861. For this latter service he was subsequently awarded the Civil War Medal.

He has often told the writer of having acted as guide for General Hancock's brigade in accompanying it from Washington across Long Bridge to its camp in Virginia. In 1858 he matriculated at Columbia University.

He received an "at large" appointment to the Military Academy from President Lincoln, was admitted July 1, 1862, and graduated June 18, 1866. As a cadet his military bearing won for him the chevrons of corporal in 1863, first sergeant in 1864 and cadet adjutant in 1865, this last being one of the most prized positions in the Corps of Cadets. Upon graduation he was assigned to the 1st Artillery and retained at West Point as instructor in artillery tactics during the summer encampment immediately following his graduation.

He commanded the Gatling platoon light battery K, 1st Artillery, in the New Orleans riots of 1868. He was a "Tac," officially described as assistant instructor of infantry, artillery and cavalry tactics, at West Point, 1869-71. He was promoted first lieutenant in 1869.

Yielding to a craving for more active service he transferred in January, 1871, to the 5th U. S. Cavalry, which he joined on the plains of the Platte Valley, and the service was ushered in with a glorious hunt or two with their chief scout Buffalo Bill. His new Colonel (W. H. Emory) having been ordered to New Orleans to command the Department of the Gulf, he took King with him as aide. He served in that capacity from Nov. 18, 1871, to January 31, 1874. While on this duty he was liaison officer between General Emory and the famous former Confederate General Longstreet, who by that time was wearing the uniform of a Major General, U. S. Army, and commanding the Louisiana militia.

In November, 1872, he married a famous old sea captain's only daughter, Adelaide L. Yorke by whom he had four children—Adelaide Patton (deceased); Mrs. Carolyn Merritt MacIntyre, wife of Dr. Donald R. Mac-

Intyre; Mrs. Elinor Yorke Simeon, wife of Charles J. Simeon, and Comdr. Rufus King, U. S. Navy, now Executive Officer, U. S. S. Wyoming. Gen. King's wife died October 22, 1928.

The Tonto Apaches in Arizona about 1874 were raising mischief and his troop was in the thick of the fighting. King hurried to join it, and for the next five years it was Indian campaigning or fighting, much of which was described in his Army stories written in later years. This Arizona service, much of the time as troop commander, brought actions to his credit at Diamond Butte, Black Mesa and Sunset Pass. The latter (November 1, 1874) proved to be his last fight in Arizona, for an arrow nearly ripped out the left eye, and, as previously stated, a bullet smashed the saber arm close to the shoulder and sent him to recuperate on sick leave. An open suppurating wound for eight long years was one of the results of this Arizona service. Subsequently this service was acknowledged by his appointment as brevet captain for "gallant and distinguished services in action against Indians near Diamond Butte, Ariz., May 21, 1874" (declined). The matter in 1924 was, in a measure at least adjusted by the award of a Silver Star Medal.

In 1876 we find him again in the field with the 5th Cavalry on the Big Horn and Yellowstone expedition participating (July 17) in the much-advertised affair on War Bonnet or Hat Creek, in northwestern Nebraska, and September 9 at Slim Buttes, S. D. On October 5 he was appointed Regimental Adjutant, holding that position until January 28, 1878; promoted Captain May 1, 1879; Major May 14, 1918, and Lieutenant Colonel January 14, 1922.

Others have written of the Big Horn and Yellowstone expedition of 1876, but King's account given in his "Campaigning with Crook," which passed through several editions, will doubtless always be the accepted history. This was supplemented (1930) by King, who traced on an out-of-print Raynolds map of that area the route followed by Crook. An abstract from his 1876 diary was also incorporated. We thus find King tho then 86 years of age engaged in recording data pertaining to the history of our Indian Wars.

He was retired June 14, 1879, for disability from wounds received in action. In 1880 he was again on active duty, this time as professor of military science and tactics in the State University of Wisconsin. In 1882 he was appointed assistant inspector general, Wisconsin National Guard, with rank of Colonel. In 1889 he was a member of the board of visitors to the Military Academy. From 1895 to 1897 he was Adjutant General, Wisconsin National Guard.

In the Spanish-American War of 1898 he was again to see war service.

Maj. Gen. Wesley Merritt was in San Francisco organizing a corps of 20,000 men for service in the Philippines and asked for the services of his former adjutant, King, who was appointed Brigadier General of volunteers, May 27, 1898.

He arrived in Manila, November 28 and was assigned to command of the 1st Brigade, 1st Division, 8th Corps, then engaged in defenses of Manila. He was in command at the Battle of Santa Anna February 5, 1899, and in frequent skirmishes in pursuit of insurgents to February 14, as well as during the attack on his line at San Pedro Macati, February 14-16. Later he commanded an expedition to Santa Cruz.

He was recommended by General Anderson for Major General of Volunteers in February, 1899, for "bravery, energy and efficiency" in battle. General Otis in forwarding this refers to a movement, suggested by General King, and later authorized, resulting in the overwhelming defeat of the insurgents with loss to them of many men, all their artillery and quantities of war supplies. General Otis adds that King in person led the movement, "showing conspicuous gallantry and efficiency." He is entitled to special recognition for this affair.

Maj. Gen. Lloyd Wheaton wrote King: "* * * you have established a reputation for bravery, ability and skill that will make you honored by Americans while you live * * *."

Maj. Gen. Lawton wrote King, saying: "* * * you are the only general officer whom I know who possesses that peculiar faculty or that magnetism which attracts men to him; you are the only one of all the general officers who has excited among the men of his command any great amount of enthusiasm * * * and you seem to possess that peculiar dash and spirit which carries men who follow you along with you with enthusiasm * * *."

General King was honorably discharged from the volunteer service, August 2, 1899. From that time until August 1932, he was almost continuously on duty at such military schools as that at Orchard Lake, Mich., and St. John's Military Academy at Delafield, Wis., which was his last assignment and from which he was relieved in August last, as the Army appropriation act failed to provide for any retired officers engaged in such duties.

His military activities therefore cover the period from 1856 to 1932—76 years! Even deducting from this short periods when on inactive duty status it is believed that he had a record of years of active service never equalled.

In 1924 he learned from the Inspector General of the Army (Helmick) that the Adjutant General (Wahl) reported that King was the only officer in the Army who had been authorized and issued badges for: 1, Civil War; 2, Indian Wars; 3, Spanish War; 4, Philippine Insurrection, and 5, World War.

Of his service, General Harbord in 1921 said: "I read General King's books before I came into the service. My first commission was in the 5th Cavalry. General King's name was a household word in that regiment, and his influence was still potent to work up enthusiasm among the youngsters in the regiment * * * General King has ceased to be an officer, he is an institution."

Of the numerous clubs and patriotic societies to which Gen. King belonged probably the "Order of Indian Wars" held first place in his affections, on the roll of membership in which as hereditary companions are his son, Commander King, and his grandson and namesake, Charles King.

The foregoing is a brief summary of the salient points in the official record left by Gen. Charles King (Lieutenant Colonel, U. S. Army, retired), whose passing will be received in the Army with keen regret. Sorrow quite as deep also, will be experienced in literally tens of thousands of homes of those who have read with joy, laughter and tears the clean, wholesome frontier Army stories by the facile writer affectionately known among his intimate Army associates as Charlie King!

W. C. Brown.
Brigadier General, U. S. A. Retired.

General Philip H. Sheridan, who died August 5, 1888, was interred at Arlington.

His passing was made the subject of a brief biographical sketch of Sheridan's career by the late General Charles King, published in the U. S. Cavalry Journal for November, 1888, and its author is identified only by the initials "C. K."

The last portion of this is so characteristic of the beauty and grace of King's literary style and breathes a spirit of such devoted loyalty to the Cavalry and admiration of its great leader that it is here reproduced at the suggestion of General Brown.

Late in the month that followed, when the armies of the Union passed in final review at Washington and shared a triumph such as Caesar might have envied, when the broad avenues rang with martial music, the blare of bugles and the tramp of serried columns, when all the Capital was fluttering with the colors of the flag, and joy and thanksgiving beamed on every face, when many a noted General was greeted with acclamations from every side, there were still two circumstances that tempered the universal jubilee. The people could not forget—could not but miss the kindly, homely, patient and pathetic face of him whom God had spared only long enough to guide the nation through a storm such as it had never yet encountered, and then be stricken down at the very entrance of the harbor where all was peace and safety. They mourned the absence of the tall, commanding form of him who, having been ever "constant in our ill," could not now be with them, "joyous in our joy." They looked with eager eyes, but all in vain, for another form—for the keen black eyes and the bronzed, swarthy features of the greatest Cavalry leader of the age, the soldier whose deeds had aroused the whole nation from its despond and kindled a flame of enthusiastic homage in every heart. "Where is Sheridan?" "When are

we to see him?'' ''Why is he not here?'' These were the cries on every side.

No triumph for him when stern duty called from afar. Even as his great commander and his comrades of the East and West were receiving the acclamations of hoarse-throated throngs in Washington, turning his back on all the sweet reward of soldierly achievement, Sheridan was speeding to the Rio Grande. Not until the last armed foe was conquered could our leader rest. Not until long years afterward, not until he had reached the pinnacle of his ambition—the highest rank in the army—the very zenith of his fame; not until his name had been carved enduringly on the lasting monuments of the ages and spoken in praise by soldier tongue in every land; not until as citizen and as a man he had developed those traits which won him honor and esteem from a people who glorified in his battle deeds; not until he had still further strengthened the ties that bound him to the cavalry—sharing danger and privation with us in the snows of wintry campaigns, joining us in march and bivouac in the heat and thirst of summer suns, guiding us in many a stirring gallop on the Indian trail, showing by word and deed his faith in the corps he led to victory; not until throughout the length and breadth of the land no name was better known than his, and spoken by no loyal voice except in honor; not until the hearts of all our people were drawn to him through the brave and patient abiding of a mortal struggle, and the old admiration of his soldier pluck and spirit kindled anew at the heroic fight he made against the only foe that ever downed him; not until all this and far, far more had been achieved, did Sheridan come for his triumph to the Nation's Capital.

Fairer day sun never blessed; clearer skies or bluer waters never smiled above or reflected back the white walls of the thronging city. Under the deep foliage of the fringing trees, bare-headed, silent, reverent thousands lined the broad avenues along which he rode. All the great dignitaries of the State were in his train; all the great soldiers of the nation followed the wheels of his triumphal car—that sombre, flag draped caisson. Guidons of his faithful horsemen, banners of the red artillery, crape-twined, bowed above the helmets of his escort, solemn strains of martial music rose and fell in mournful cadence as with muffled tread we bore him on. Up the broad thoroughfare with its bordering ranks of sorrowing faces, white and black, over the graceful arches that span the blue Potomac, through the winding aisles to Arlington we followed our old commander, halting at last where the declining sunlight slanted down that beautiful green slope. At its crest the stately portico of the old Virginian mansion, and the roadway, ranked with silent troopers; at its base the fringe of thick leaving trees, through whose foliage came the glint of arms and the scarlet colors of the batteries; beyond them the broad, peaceful valley, the winding sweep of noble river; beyond them all the gleaming white shaft of the distant monument, the shimmering dome of the Capitol, all bathed in August sunshine. Near at hand a silent, reverent group of uncovered heads, from whence there rises presently the chanting ritual of the Church of Rome. The solemn service is soon complete; the reverend clergy fall slowly back, the Loyal Legion sadly take their last look upon the shrouded form of their honored Chief, and then—then tears gush forth from eyes long unaccustomed, and strong men bow their heads or turn aside as, with tender care, a soldier's daughter, a sorrowing woman, is led away from the grave of him who was her hero and her pride. Down beyond the trees there is a quick, yet noiseless movement, then the earth trembles with the sudden concussion; gun after gun the battery booms its parting salute to the General-in-Chief. A few low-spoken words from the aides-de-camp and the throng falls back to the very crest; the smooth green carpet of the slope is now one great unbroken square, save for that narrow cleft in its fair surface, bordered by those ridges of new-turned clods. Another stir and rattle down beyond the trees and then as suddenly the leaves all leap and quiver as a flashing volley shoots aloft—another—another, and the pale blue clouds come drifting slowly up above the foliage, and then—last scene of all— there appears at the head of the grave one silent, statuesque, solitary form, clad in the full dress uniform of the trooper. A moment's pause until the echo of the final volley has died away in the distance and then he raises the trumpet to his lips. Soft, tremulous and low as we have heard it many a time in windy nights on the far frontier, and in mountain bivouac in the old campaigns, the first notes of ''taps'' float out upon the hushed and pulseless air; then louder, throbbing, wailing, well-nigh passionate, it thrills through every heart—a sobbing requiem, the trooper's one adieu to cherished comrade, then, sinking, fading, falling, it slowly dies away and all is done.

Aye, though statesmen, soldiers, priests and delegates thronged to take their part in the mournful ceremonies of the day; though from far and near were gathered the nation's highest names, the closing rite of all is paid by the hands of those whose sabres he had led to fame and victory: the cavalry bade the last good night to Sheridan.

C. K.

PROFESSIONAL NOTES *and* DISCUSSION

Swimming Horses

May 20, 1933.

The Editor, CAVALRY JOURNAL,
1624 H Street,
Washington, D. C.

Dear Sir:

In the March-April, 1933, copy of the JOURNAL was an interesting article on swimming horses by Major O. I. Holman. In the article he gives several methods for training horses to swim.

There is one method, which I believe would have proved most valuable, that he did not use, and as I have never seen it in print, I am giving it to you for what it is worth.

Generally speaking, any horse will enter the water willingly and will unhesitatingly go out as far as he can and still reach bottom. This assumes that the bottom is shelving and gradually deepens. When the horse gets to the point where he can reach bottom only with his hind feet, he begins to rear and plunge. At this stage he is dangerous, as he is apt to try anything to keep his hind legs down. Once these are off the bottom he must swim and but little practice is then necessary to enable the rider to control him and keep him swimming.

To accomplish this, the rider puts the horse in the water, keeping well back on the horse's rump, and remaining there until the horse has difficulty finding bottom. The rider's weight helps keep the hind legs down. As soon as the horse begins to struggle to find bottom, the rider then quickly pulls himself *well up* on the withers. This forces the forehand, which is by now free from the bottom, down, and floats the hind quarters. The horse *must* now swim and the rider is in position to control him.

There are a few horses who fight the water and will not enter it. With these the rider must stay in the saddle and work with him gently until he can be induced to go out far enough so that his forehand is floating. The method described can then be utilized.

Very truly yours,
H. LAT. CAVENAUGH,
Colonel, Cavalry.

Patrolling in Wooded Terrain

By Sublieutenant de R. Julio Murillo, Cavalry Regiment "Abaroa," Bolivian Army, Translated by 1st Lieut. C. C. Clendenen, 5th Cavalry, from Revista Militar (Bolivia), Nov.-Dec., 1931.

MANY of the principles brought out in our present regulations on patrolling in forested districts are inapplicable to the problems which we actually face in our service. Our regulations are based largely on European regulations, which have been deduced for forests of a definite and particular character—like the Argonne, for example. The differences between that terrain and the terrain upon which we are required to operate are so great that it is necessary to vary somewhat the details of our present regulations.

Our forested areas present low mountains, deep glens, the beds of dry rivers, great clearings (*chacos*), alleys, etc., and are supremely adapted to a guerilla warfare in which ambush, stratagem and surprise play the predominant part. The assault troops must comprise small bodies of troops which depend upon careful organization and great fire power, rather than numbers.

A cavalry patrol charged with the mission of determining the exact location of an enemy post, or of enemy effectives in the forest, must have, in the first place, at least an approximate idea of the lay of the land. The leader must add to this a full appreciation of the delicacy of his mission, the ability to extract the greatest possible information from his observations, rapid decision, no matter how difficult the situation, and the gift of orientation, augmented by careful training. If any lower standard is set, the patrol is condemned to destruction.

There have been, moreover, many instances in which a patrol, overcome by the fatigue of a long or difficult mission, has returned to its base with insufficient information, or information entirely unsatisfactory for the purposes of the higher command. Patrols have terminated their missions, owing to incorrect deductions or false information, when they had scarcely started.

It is a recognized fact that the employment of large cavalry patrols in the forests is attended with very definite disadvantages, even though they have been successful in certain regions. A large patrol is always exposed to the danger of discovery and attack. On the other hand, an officer's patrol of eight or ten men is easily concealed and possesses a great power of infiltration. It is this type of patrol which we will discuss in the present article.

To insure the success of a patrol operating in a forested area such as we have already mentioned, the leader must

a. Consider possible sources of information,
b. Make careful preparation,
c. Reflect fully on the conduct of the patrol,
d. Consider all available information.

Sources of Information

An officer assigned to a unit in the forested regions of our country has ample time during his journey to acquire considerable information, such as distances between various points of military interest, the condition of roads, etc. On arriving at his organization he should study the records and archives and consider the sketches, plans and information contained there-

in, especially those items and details of concern to a patrol leader. The higher officers of the regiment should give the newcomer full cooperation in this, and the older officers should give him the full benefit of their experience.

In his study he must not forget to note such details as the following: In what districts is he likely to suffer from lack of water? What areas are unexplored, or little known?

He should know where to obtain an Indian guide who will simplify a great part of his problem as a patrol leader. The Indian, because of his nomadic life is never entirely ignorant of any part of the forest, and can give a great deal of information essential to the success of a patrol's mission, such as the entrances and exits of a forested area. But the officer must learn to evaluate an Indian's information carefully, for an Indian will give any sort of false information to earn his pay.

Preparation

A patrol leader must pay great attention to the condition of his horses. He should avoid using animals which have just completed hard work or which are of conspicuous color. He must pay close attention to the cleanliness of the patrol's armament. He must endeavor to obtain a suitable uniform for his men—that is, a uniform which will be inconspicuous, according to the season of the year. There have been several cases in which patrols have been discovered and placed in great peril, solely because their clothing was conspicuous. Our uniform is excellent for forest service when new but fades with frequent washing and, consequently, loses its protectiveness. In such a case, it is not difficult to improvise a suitable garb. In addition, a canvas apron is useful for protection against thorns and the *cadillo* (a tiny thorn which penetrates the clothing, causing considerable injury). A leather rifle boot suspended from the pommel of the saddle facilitates the use of the rifle, even when mounted, and the soldier's equipment should include a leather hobble for the fore legs of his horse.

The desirability of taking a reliable Indian on the mission merits special consideration. His knowledge of the woods and his skill in orientation may be invaluable.

Conduct of the Patrol

Once the patrol leader has received his orders and his hour of departure, it is generally left to his initiative to determine at what point he will begin to observe march precautions. On leaving the advanced posts, the patrol leader should put out a point or observer (*vaquiano*), followed by another soldier at such a distance that he does not lose touch with the rest of the patrol, which follows in small groups, or in file.

The passage of fields or mountain clearings is a matter of peril to a patrol, since such open spaces are well adapted to ambush. The covering detachment, on arriving at a field or clearing, should halt at the exit of the woods and let the remainder of the patrol close up. The leader should then direct the *vaquiano* to proceed alone along the trail in the direction of the march, keeping the rest in view. Meanwhile, a sufficient number of the remainder move to the right and left of the exit, at distances of five or ten paces, and skirt the edges of the clearing at the trot, without losing sight of the *vaquiano*. The latter gains the edge of the woods, penetrates some twenty paces and awaits the assembly of the patrol.

This method of passing a clearing combines the following advantages: the patrol cannot be surprised in a position where it cannot take cover, it is ready for instant combat, its retreat is assured, and the leader retains control over the direction of march. Small clearings should be avoided. Funnel-shaped clearings or alleys should be avoided if possible. If they must be crossed, it should be at the gallop, the troopers crossing one at a time. In very large clearings the distances should be increased to about twenty paces, and the leader should ride at the head with the Indian guide. If the leader rides at the head of the patrol, he is able to observe personally and to avoid the inconvenience of small visibility and false alarms, which are the great peril inherent in large clearings.

A patrol should avoid night marches as much as possible, except on nights of bright moonlight and in terrain which is well known. The peril of night marches lies chiefly in the noise made by the animals and the ease with which a patrol is ambushed from the side of the road.

A patrol should make its bivouac on the mountain to one side of the road or trail, at a distance of at least one hundred meters. There the patrol can rest quietly, after making a small clearing for the herd and an exit trail. A sentinel should be posted at the entrance trail. It is inadvisable to bivouac near an Indian village.

Information

On the termination of his mission, the patrol leader should report promptly in writing, so that his superiors may benefit immediately by the information he has gained. He should include in his report a sketch of the route he has followed, indicating thereon the important features of the terrain and any new discoveries he has made. He should give a tactical appreciation according to his own observations and he should consider the *morale* and condition of his troop. Nor should he forget to mention the watercourses, natural wells or difficult defiles which he may have observed, the Indian communities, the names of some of them, his investigation of designated localities, and the dialects which are there spoken.

In concluding, I would like to remind our comrades that each of them, in making his report, is adding one more grain to the mass of our knowledge. A patrol leader's report is not an isolated document but is an additional means of acquiring and divulging knowledge which will redound to our advantage and to the efficiency of our institution.

SPORTS

Hunter Trials—Cobbler Hunt, Virginia

By Major William M. Grimes, Cavalry

ON Saturday, March 25, 1933, the Cobbler Hunt, Delaplane, Virginia, conducted its annual hunter trials.

Hunter trials contain much to arouse the interest of the military horseman. In the first place, a really good hunter is everything that our ideal charger should be, a well-bred, sound, level-headed weight carrier, capable of prolonged cross-country galloping and of negotiating without effort or exertion the usual obstacles and difficulties encountered over varied terrain. The term "trial" is simply another name for a "test" —"charger's test" if you will.

This particular hunter trial should interest all cavalrymen, 'unting pink had a taint of Army blue. The Master of the Cobbler Hunt, Major George S. Patton, Jr., Cavalry, U. S. A., is the first regular army officer to head one of the Virginia hunts;* the senior judge was none other than Major General Guy V. Henry, Chief of Cavalry, U. S. A., an ardent fox-hunter; lastly, nine Army officers and their mounts competed in a class arranged especially for them. This is the first time that any recognized hunt (civilian), has held such a class; let us hope it is the beginning of many similar opportunities. Friendly competition of this nature does much to bring the civilian and military horseman in close contact. Each has much to pass on to the other.

A word as to the Cobbler setting, the course was laid out on two beautiful farms skirting the foothills of the Blue Ridge, in the middle of Virginia's fairest hunting country.

The two-mile course was in full view of the spectators. It included nine fences, such as would be encountered in a day with Cobbler. First, a snake fence, topped by a locust rail, approximately three feet eight; this was followed by a gallop in plow to a stone fence with stake and rider typical of the Cobbler country; the wall on the takeoff was nearly four feet, whereas the landing was but 2 feet lower; the third fence was a stiff post and rail leading out of a narrow lane; thence a long gentle downhill gallop to a farm gate which had to be opened and closed (if you think it easy to open a farm gate from the saddle, see how many horses in your troop will stand quietly for such a test); after the gate there was another approach through plow to a three-foot chicken coop panel in a wire-fence line; thence a downhill gallop and over a small branch (water obstacle 2½ feet wide); then came a rather long uphill pull to another post and rail; thence on through more plow to another rail fence with a trappy takeoff; thence through a farm yard and a downhill gallop to an in-and-out across a lane—this in-and-out, paced about 27 feet between post and rails which were approximately 3-10 to 4 feet high; after this an uphill gallop to the finish with one more fence, a post and rail, before crossing the line.

It may be interesting to know that between the flags on the post and rail fences the average width was three panels, each panel a ten foot rail, four rails high.

The conditions of the several classes follow:

Class 1—*The Cobbler Class*—For members, landowners, subscribers or renters in Cobbler Hunt.

Class 2—*Junior Class*—For children under 16 years to ride horses they have hunted.

Class 3—*Open Class*—For members of a recognized hunt who have hunted with Cobbler.

Class 4—*United States Army Officers' Class*—Open to Army officers who have hunted with the Cobbler Hunt.†

CLASS 5—*Race for Hunters.*

The following conditions governed at Cobbler:

1. Entry fee, $2.00.

2. Contestants were required to complete the course within seven minutes.

3. Two refusals; fall of horse or rider; and jumping any of the obstacles before the event was disqualification.

4. Judging was based on performance, form over jumps, cross country, and condition at finish. Jumping, manners, pace and style counted 90 per cent; conformation counted 10 per cent.

Only the first five were judged for conformation. In judging, no exceptions were made for hunting blemishes or technical unsoundness, provided that they did not interfere with the efficiency of the horse.

5. Horses to be shown in the bridles in which they were ridden.

6. Professional riders were not allowed to compete in any of the events.

The only thing to mar an otherwise perfect affair was the weather. The trials were run in a heavy blizzard; but in spite of the blinding snow, with difficult footing and going, there was only one spill amongst the sixty-odd contestants—a tribute to skillful riders and surefooted le'ppers!

Probably one of the most colorful events of the

* Major Patton has had more actual hunting experience than any officer in the service; he was one of the early Masters of the old Mounted Service School Pack, and has hunted with practically every pack on the Atlantic seaboard.—Author.

† Through the courtesy of the Master and members, the Cobbler Hunt has been extremely generous and liberal in extending guest privileges to the Army.

entire day was the race for hunters. This was a truly sporting affair and one to warm the cockles of your heart. In spite of the adverse weather conditions and the going on this afternoon, eight pink-coated horsemen raced over the hunter trial course, with a few jumps added for good measure, at a truly steeplechase pace that would have been a nice clip for the Virginia Gold Cup. Major Patton won this sporting event.

For those who may be interested further in the subject of hunter trials, I have jotted down a few observations and experiences gained in competing, conducting, and judging them.

Generally speaking, a hunter trial is a test to determine the relative merits of the various horses that have regularly followed hounds.

The horses are judged solely from a hunting viewpoint; obviously, they should be judged by those who hunt. It is highly desirable that the judges walk over the course, inspect the jumps and note the condition of the takeoff and landing and going in general.

There are usually two or more classes, perhaps a *green* class for horses that have just completed their first season, a *qualified* class for horses that have hunted more than one season, and often we also find an *open* class.

Hunter trials are laid over typical country of the hunt in question, the courses being fairly representative of conditions as to fences, terrain, etc. Trials as a rule are from two to three miles in length, with ten to fifteen fences, and for good measure each contestant is usually required to open and close a gate.

The primary requisite for a hunter, incident to following hounds, is the ability to gallop safely cross country, negotiate without effort the usual fences and terrain, and, withal, give a pleasant ride without physical or mental discomfort to rider. In other words a hunter must first of all possess manners, must be able to fence and be a good galloper.

Details of judging include:

a. The horse's cross-country galloping ability, style, rate and way of going; does he flow along the ground with measured strides, long, easy, even, and smooth, or does he gallop in place with a sticky, jerky up and down movement as if glued to flypaper?

b. Fencing ability, form and style—does he approach and take his fences in stride—freewheeling as it were—shoving off with his hocks on a nice flat trajectory, landing well away and under way as if going somewhere; or does he approach with brakes unevenly applied, stopping and popping like a rubber ball, on a howitzer trajectory, landing on all fours close to the fence, in no hurry to get going and apparently no place to go?

c. Handiness and cleverness—does he give evidence of ability to get out of tight places at fences and where footing and going are difficult; where the takeoff is rough, uneven, or slippery, does he slow up and cagily choose his takeoff or does he continue on irrespective of what's under foot, blindly gazing at the heavens, or is he busily occupied in scanning the takeoff?

d. Manners at, over, and between fences—as he approaches a fence, does he suddenly charge forward with a burst of speed, pulling and shaking his head, out of hand and uncollected, or does he approach calmly in hand and collected, adjusting pace, position of head, neck and forehand to take off, obstacle and landing; does he take his fences straight on as he should in 99 cases out of 100, or does he fence obliquely?

e. Having safely negotiated his fence, does he then gallop smoothly on to the next without need of urge or restraint, but rather adjusting his pace to the terrain, slowing down a bit where the going requires it and making up time where the going permits. In other words, is he a safe, sensible, keen, alert, tireless, level-headed galloper, mindful of his "p's" and "q's"?

f. Since *condition* is such an essential requisite, each horse is carefully examined at the finish to determine his general condition and his ability for further sustained effort. A well-trained hunter, in condition, should be able to gallop on and follow hounds without any difficulty after completing the two or three mile point which the hunter trial approximates. What was his condition at the finish; was he alert, fresh, strong, capable of further effort, or did he give evidence of being blown, leg weary, tired, out of con-

Top: Mr. Roger Bayly of Upperville, Virginia. This is a good example of the Virginia hunting seat by one of its leading exponents. Mr. Bayly is an excellent cross country rider. This post and rail is about 4 feet high, the take-off being considerably lower than the landing.

Bottom: Major G. S. Patton, 3rd Cavalry, on "Wild Ben," winning the Hunt race.

dition? Had you been following hounds, with a fast run staring you in the face, would you care to keep going with this horse or would his condition cause you to pull out?

Time as a rule counts, with an overtime penalty. The usual course can be negotiated safely within the allotted time limit by galloping 12 to 16 miles per hour.

There may or may not be a percentage for conformation. Where conformation is considered, as a rule it counts little, 5 to 10%. Jacks, curbs, splints, capped hocks, etc., provided they do not impair the hunter's ability to perform, are not seriously considered. "Hunting sound" is the yardstick.

A typical example of scoring conditions:

Performance, manner and way of going and condition at finish	95%
Conformation	5%
Knock-down, front or hind	5 faults
Refusals or run-outs, each	2 faults
Three refusals or run-outs; fall of horse or rider or both, loss of course; failure to take course in proper order; cutting flags, etc.	Elimination
Contestants must complete course within..... minutes, otherwise one point penalty for each five seconds or fraction thereof over..... minutes is assessed.	

Officials vary with the conditions under which the trials are conducted. In general there are one or more principal judges, patrol judges, scorer, clerk of the course, timers and starters. The principal judges score each horse as to galloping and fencing ability, handiness, manners, conformation and condition. The patrol judge patrols the course and sees that the route is followed. Scorers record penalties at the fences to which they are assigned and later turn their score cards over to the clerk of the course, who consolidates them for the principal judges. The timer and the starter take their positions at the start and finish and perform their indicated duties.

In drawing up conditions for and laying out a hunter trial, a desirable consideration is that spectators see the greater portion of the fences and terrain. Otherwise, interest lags soon after the first few have started.

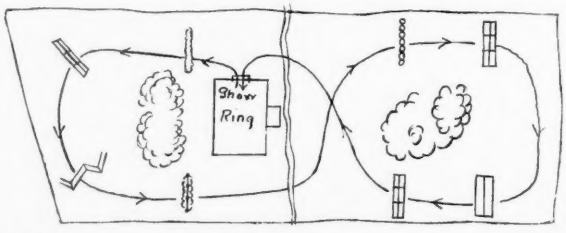
The Army Relief Horse Show

IN spite of the competition of the Fairfax Horse Show and the Maryland Hunt Cup, both of which were held on the same date, the Fort Myer Army Relief Horse Show turned out to be one of the bright spots of the season. This show was held for the benefit of the Army Relief Society on April 29th in the new show grounds developed on the Experimental Farm near the Virginia end of the new Memorial Bridge. To Major George S. Patton and his riding family is due the entire credit, not only for a beautifully run show, but for the accumulation of five hundred and seventy dollars for the Army relief, and the introduction of several novel ideas, serious and otherwise.

The grounds mentioned are spread over a rolling tract of about twenty acres, roughly rectangular in shape, containing two small wooded knolls, separated by a flowing stream, as shown in the accompanying diagram.

The show ring is at the foot of one of the knolls, whose shady slopes provide ample space for spectators. Along the sides of the tract are the jumps of the outside course, which is acknowledged to be one of the best in the country. The jumps are those natural to this section and include a stone wall, a hedge, a worm fence, a chicken coop, a plank fence, a hitchcock, post and rail fences, and two natural ditches. All jumps are wide enough to require no wings, and the majority of them are built half, three feet six inches high, and the other half, four feet. Three very good classes were shown over the outside course in a large figure of eight, measuring about a mile.

Three classes were shown over this course, novice hunters over three foot six panels, and hunters that had been ridden with the Riding and Hunt Club Hounds over four foot panels, Lieutenant Eugene Harrison, 3d Cavalry, riding the winners of both classes. The other class shown over the outside course was



for hunt teams, which brought out seven teams, including one from Major Patton's Cobbler in Virginia. Major Blunt's Riding and Hunt Club Hounds from Maryland, and The Warrenton Hunt Club from Virginia, who proved the winner of this class.

Besides the customary hunter, jumper, and horsemanship classes shown in the ring, a class for children was shown over a small outside course, approximately half a mile in length, with three-foot jumps. Many older people could profit by the way these youngsters sailed their usual miscellaneous assortment of children's ponies up and down hill as fast as they could lay foot to the ground.

The Junior Horsemanship Class, which brought out twenty-eight entries, was decisively won by Miss Patricia Henry on General Henry's *Gray Falcon*. Had there been a family prize, this horse, a thoroughbred gray gelding, should have won it, for in addition to a nice performance with Miss Mary Henry in the Ladies' Hunters, he made one of the outstanding performances of the day when shown by General Henry over the outside course.

The championship of the show was awarded Miss Margaret Cotter's nice bay gelding, *Impulse*, on a point score, computed by giving each ribbon blue, red, etc., a numerical value. His outstanding performances were defeating twenty-eight other entries in the Junior Jumping, and taking the blue in a class of twenty ladies' hunters.

After awarding the championship, one more prize waited to be awarded—a booby prize, awarded, also, on a point score, but computed from the total number of faults made by the various horses. This valuable trophy, a large old-fashioned brass spittoon—beg pardon, cuspidor, was won by Mrs. Robert Windmill's *Waverly*.

National Capital Horse Show

DESPITE the unfavorable weather conditions, the National Capital Horse Show was quite successful. While the attendance was not all it might have been, the efforts of the Junior League of Washington, who sponsored the show, went far toward offsetting the greasy footing the weather man provided the first three days.

Classes were, with one or two exceptions, extremely well filled, though the appearance of many of the same horses in class after class was a source of some complaint by exhibitors. This dissatisfaction appears justified, as obviously any owner with enough good horses can monopolize a show unless some restrictions are put in the prize list. On the other hand, everyone will agree that there was nothing to be desired in the way the show was run off.

Generally speaking, it was Mrs. John Hay Whitney's show, as her horses took most of the important classes where conformation counted. In the Open Jumping Classes entries from Fort Myer accounted for eight of the twenty-five places awarded, including the first three places in the Triple Bar Class, and winning the Open Jumping Sweepstake, as well as second place in the Pairs of Hunters.

While the horsemanship of the Army riders was outstanding, they might have won more places had their method of riding varied according to the way of going of their different horses.

The Military Classes were designed to bring out service mounts, suitable for both officers and enlisted men, and with a view to showing civilians what these horses should be able to do. Both were shown in full field equipment and, while the Enlisted Men's Class was excellent, the Officers' Class was a great disappointment, only three horses being shown.

In addition to the lessons learned by individuals, as a result of their own experiences, this show left the following general impressions:

Hunter Trials, Riding and Hunt Club, Washington, D. C. Major General Guy V. Henry, Chief of Cavalry, Riding "Big Boy," Winner of Second Place.

That, with well balanced horses, properly shown, the footing makes little difference.

That all horses cannot be ridden exactly alike.

That more attention should be given to the suitability of officers' chargers for service use.

Hunter Trials, Riding and Hunt Club of Washington

THE Riding and Hunt Club, of which Major Wilfrid M. Blunt, Cavalry, is Master, held its first Hunter Trials at its kennels at Bradley Farms, Maryland, on April the eighth. These trials which consisted of three well filled classes were shown over a course of approximately two miles of rolling country before about fifteen hundred spectators.

The advent of Hunter Trials has introduced a new mounted sport which is insured a warm welcome, especially among the military. Hunter Trials can be held at or near almost any station, regardless of whether there is actually a hunt in the particular locality or not. They offer a combination of the best features of show ring jumping and racing, without the artificiality of the former or the extensive preparations required for the latter. They can be held at almost any time of the year, and the conditions can be varied to suit any locality. Finally they provide an excellent opportunity for contestants to demonstrate their ability to "go places and do things."

Of the three classes, in these Hunter Trials the first two called for owners to ride, the first being for members of the Riding and Hunt Club on horses that had been hunted during the past season with the Riding and Hunt Club hounds. The second class was for officers of the Army or members of any recognized hunt, and the last was an open class for any horse and any rider.

An interesting feature of these trials was the close competition in the second class between General Guy V. Henry and Major George S. Patton, Jr., the former having a total score of 97 compared to the latter's score of 99, which won this class.

New World Record for High Jumping

By Lieut. M. F. de Barneville, QM-Res., American Embassy, Paris.

SINCE Monday, April 10, 1933, at 7 P. M., the world record for high jumping on horseback has been broken. On that day, the horse *Vol au Vent* ridden by Lieutenant Count Christian de Castries, of the 11th Regiment of Cuirassiers of the French Army, at the Grand Palais during the Paris Horse Show, made a clean jump of 2 meters, 38 centimeters (7 feet, 9¾ inches).

This is the first world record officially registered with the International Equestrian Federation since its foundation in 1921. The highest jump *officially recorded* heretofore: 2 meters 36 (7′ 9″) was made on August 17, 1912, at the Vittel (France) horse-show by two horses: *Biskra*, owned by Messrs. de Mumm and Lowenstein and ridden by M. de Juge-Montespieu and *Montjoie III*, owned by Messrs. de Rovira and R. Ricard and ridden by M. Ricard.

Therefore the record of 2 meters 36 established at the Vittel horse show in 1912, while not registered with any international body, as the "Fédération Equestre Internationale" was not yet in existence, had been generally conceded to be the world record until April 1, 1933, at least in the absence of any other claimant to the title. The performance of the American horse *Heatherbloom* in 1904 over 7 feet, 10¼ inches, is not considered official, outside of the United States, nor is that of *Great Heart* who jumped 8 feet, 3/16 inches at the South Shore Country Club, June 6, 1923.

The obstacle used for the high-jumping competition consists of a set of poles 6 meters long and 12 centimeters in diameter, resting loosely on two side-posts 2 meters 60 high, set at a 30° angle with the ground, so that the obstacle is slanting from the take-off side. Two wings about 2 meters high and 6 meters long prevent the horses from running out. The poles are of bamboo wrapped around tightly with strands of woven straw and, while stiff enough not to sag in the middle, are not likely to cause any injuries to the horses in a crash. The lower part of the obstacle, to a height of about 1 meter 30, consists of brush above which the poles are placed at close intervals above each other to prevent too much daylight from showing between them. These poles are suspended at either end on iron pegs and must not be fastened to the pegs or to the side-posts. The pegs fit in holes inside the side-posts and the 2 pegs supporting the uppermost pole are fitted with a leather disc about 15 centimeters in diameter to keep the pole from slipping off.

In accordance with the regulations of the International Equestrian Federation, an affidavit recording the event was drawn up in four copies to be filed in the archives of the International Equestrian Federation, of the French National Equestrian Federation and of the "Société Hippique Francaise" under whose auspices the show was held. These affidavits were signed by the following witnesses: Baron du Teil, for the "Société Hippique Francaise"; General Détroyat, for the "Fédération Francaise des Sports Equestres"; Maurice F. de Barneville, as Delegate of the International Equestrian Federation, representing Major General Guy V. Henry, Chief of Cavalry, U. S. A., and President of that Federation, and by two judges of the event; Count René de Beaumont and Count de Goulaine.

The Foreign Military Press

Reviewed by Major Alexander L. P. Johnson, Infantry

BRAZIL—*Revista Militar e Naval*—September, 1932.

"The Bolivia-Paraguayan Conflict," by De Pizarro Loureiro.

The conflict between the two South American republics hinges upon the interpretation placed by them upon the "uti possidetis" agreement of 1810. Bolivia claims de jure title, and Paraguay has a de facto title to the disputed territory of the Gran Chaco, although Paraguay asserts both with equal force in support of her claim.

The origins of the conflict must be traced to the period of emancipation of South America from Spanish rule. Columbia formulated the doctrine in 1819, that the boundaries of the new republics be determined in conformity with the laws of the mother country in force in 1810. Since all latin republics assented to this principle, the author quotes the eminent Brazilian authority, Euclydes da Cunha, to the effect that "de facto possession, though effective and real, is not sufficient to establish national boundaries."

The author states, that Bolivia, which constituted the Royal province of Charcas, inherited the boundaries assigned to it by the Spanish monarchs. These included all of the Chaco Borealis. Paraguay, on the other hand was formerly the province of Guayara, whose boundary in colonial times was marked by the Paraguay River. He charges, that Paraguay advanced her claims in the Chaco region at a time when Bolivia was in the throes of internal difficulties and lacked the necessary means of opposing Paraguayan agression.

FRANCE—*Le Revue d'Infanterie*—December, 1932.

"Russian Ideas on the Employment of Modern Tanks," by Lieut. Col. Mendras.

"A good communist," the author writes, "loves everything scientific or technical, everything that is new or bears the imprint of tomorrow. The Soviet military publications indicate, that the army is no exception to this rule." It, therefore, seems natural, that the military authorities of Soviet Russia should devote much thought to mechanization, motorization and other modern means of warfare.

The author presents without comments the views expressed by Soviet military writers on the problem of rapid exploitation of a successful penetration of a hostile front by mechanical means. They visualize an attack in two principal waves, the first or assault wave, and the second or exploiting wave which is assisted by mechanized and motorized forces operating against the hostile flank. Russian military writers believe, that modern tanks, a powerful air fleet and artillery permit a complete discard of attrition warfare in favor of vigorous action which seeks to smash the entire hostile front. The following principal means of the attack are enumerated:

1. Tanks with power of long range action or heavy artillery capable of effective action against hostile rear areas, command posts, artillery, reserves and installations.

2. Tanks for infantry protection—Penetration of the hostile front and action against the enemy's main line of resistance would be their principal mission.

3. Infantry support tanks which would attack in close contact with the supported infantry.

4. Long range artillery for counter-battery to neutralize hostile artillery fire before and during the initial stages of the attack. Supporting artillery with the mission of neutralizing the hostile main line of resistance and to support the tanks during their advance.

6. Antiaircraft artillery.

7. Attack aviation with the mission of attacking hostile artillery and reserves, at the same time to keep away hostile aircraft.

8. The Infantry, which delivers the final blow against the hostile position.

The relative blindness of the tank is deemed its principal weakness. The hostile artillery is its greatest enemy, hence it is imperative that it be neutralized. On the other hand, a field artillery battery protected by a mine field could effectively resist a company of Christie tanks, Soviet experts think. They estimate, that 200 mines (10 tons) will close a front of one kilometer, and that it will take two companies about two hours to prepare such a mine field. The estimate as to the number of tanks required is high. For a corps attacking on a front of 6 to 8 kilometers, according to Soviet estimates two battalions of tanks for long range action, one battalion for infantry protection and three battalions for direct support of the infantry would be required.

For effective employment of their Air Force, Soviet military writers advocate concentrated action in time as well as in space. They estimate, that one bombing squadron would be necessary to attack effectively a battalion of field artillery in position, or a regiment of infantry in route column.

Close liaison between all elements of the attack is emphasized, hence the jump-off time of the different echelons must be carefully determined and coordinated. In the Soviet military conception the second tank wave should be timed to follow the first at an interval of five minutes; seven minutes should elapse between the jump-off of the second and third waves, while the infantry as the fourth wave should follow after a lapse of three additional minutes. This time schedule may have the inherent defect, that during the approach to the line of departure, the three tank echelons and their supporting artillery would have to

pass the infantry column, hence is liable to cause crowding, confusion and disorder.

Russian military writers apparently take issue with the view that modern tanks permit the omission of artillery preparation as a means of securing the effect of surprise. On the contrary, it is thought that where hostile defence is organized in depth, artillery preparation for an hour is indispensable in order to neutralize the enemy's strongpoints and to insure the safe arrival thereat of the attacking tanks. Moreover, they believe, that these tanks should be provided with special artillery support. The proper time for the air attack against the hostile artillery and reserves is, in the Russian view, the precise moment when the supporting artillery must lift its fire. The Soviet military experts believe that perfect coordination may be achieved by assigning to the division a definite objective which should include the hostile artillery positions, a total depth of advance of 6 to 8 kilometers. This objective the division must reach without halt or delay.

Infantry mobility on the march and in combat, the Russians believe, must correspond to the striking power of that arm. In order to achieve that end, they advocate that:

1. All infantry be motorized and that all motor transport be provided with protective armor;
2. In addition to its normal and traditional components, the infantry regiment should include a reconnaissance company consisting of three sections (light armored car section, light tank section and a very light tank section); one company of medium armored cars; a chemical warfare company, and a motorized antitank battery. The battalion should include a company of armored cars with machine guns; one company of small tanks, and one motorized artillery battery (consisting of an antitank section, an AA section and a trench mortar section);
3. The combat train should consist of armored tractors, the field train of motor vehicles on three axles;
4. The supporting artillery of the regiment should likewise be tractor-drawn and armored.

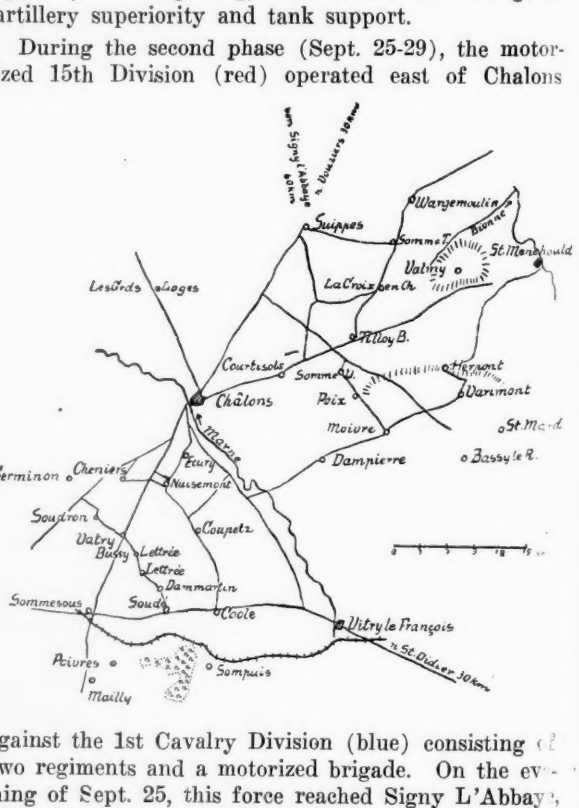
GERMANY—*Militär Wochenblatt*—November 11, 1932. "The French Manoeuvres", By No. 72.

As usual, several divisions, corps and army troops and air units participated in the last annual fall manoeuvres of the French Army. They were labeled "exercises of all arms", the author states, partly to keep away foreign military attaches and partly to mislead the public. The object of these exercises was to test new materiel and to determine the advantages which might accrue from the employment of motorized and mechanized forces in turning movements. Full secrecy was maintained even to the exclusion of press correspondents. The 15th Division comprising three infantry regiments was motorized for purposes of these exercises. In the first phase this force opposed an infantry division of four regiments, while in the second phase it operated against a reinforced cavalry division.

During the first phase (Sept. 19-22) the Blue 15th Division advancing from the north reached the area north of Chalons on Sept. 18. At the same time, the 2d Colonial Division assembled at Mailly. Both divisions represented the extreme west flank of their respective main forces. On the following day, Sept. 19th, the 15th Division was to cross the Marne. Motorized elements were to capture the bridges by surprise action and sweep aside any opposition to the crossing.

The Red air forces located the Blue Motor Column and attacked it near Les Grandes Loges. Blue aviation countered by bombing Red landing fields. The Blue Motor Column advanced rapidly, meeting weak resistance, and in four hours reached the line Germinon-Soudron-Vatry. In course of the afternoon the column pushed its advance to the vicinity of Sommesous-Coole. The crossing of the Marne was effected under cover of darkness, the Blue commander deciding to detruck his division in the area Cheniers-Nuisemont-Ecury. On the following day, about noon, Blue attacked the Red defensive position along the line Poivres-Sompuis, and penetrated the first position. On Sept. 22, Blue heavily supported by tanks, resumed the attack making the main effort on its right, captured the Red first position and broke into the second. The ease with which Blue gained success over the numerically superior Red infantry, in the author's opinion, was surprising, and he ascribes it to great artillery superiority and tank support.

During the second phase (Sept. 25-29), the motorized 15th Division (red) operated east of Chalons



against the 1st Cavalry Division (blue) consisting of two regiments and a motorized brigade. On the evening of Sept. 25, this force reached Signy L'Abbaye, while the 2d Colonial Division (red) arrived at Vitry Le Francois. Both units represented the extreme western flank of their repective armies, each destined to

turn the hostile flank. On the morning, Sept. 26, the motorized elements of the cavalry division advanced in two columns on Vitry Le Francois. At the same time, the 2d Colonial Division started its march on St. Menehould. At 8 a.m. advanced elements of the cavalry (dragoons and armored cars) encountered weak detachments of the Red flank guard (motorized infantry and dragoons portée) near Suippes. These were readily brushed aside and at 10 a.m. Blue reconnaissance patrols reached Dampierre and Moivre, but were repulsed and driven back. Erroneous impressions created by false reports of this action caused the Blue commander to halt his column for several hours, and consequently he did not reach Dampierre until too late to reach a favorable decision.

On September 27, heavy fog blinded aerial observation. Believing that he faced the entire 2d Colonial Division, the commander of the Blue motorized brigade decided to occupy a defensive position along the line: Courtisols—Somme Vesle—Herpont, pending the arrival of the remainder of his division. Red developed in regimental assembly areas at Varimont, Poix, St. Mard and Barry Le Repos. Apparently the fog prevented a Red attack against the overextended line of the Blue motorized brigade. The latter promptly began aggressive reconnaissance until relieved by mounted troops. With the lifting of the fog, about noon, undecisive frontal engagements developed. On the morning, September 29, the 2d Colonial Division launched a well-coordinated attack. Air forces on both sides participated in this action. At 9 a. m. the Blue commander launched a strong counterattack with his motorized brigade supported by attack aviation and succeeded in recapturing the heights north of Valmy. In this engagement, the author notes, contrary to customary practice, tanks attacked without accompanying infantry. By way of comment, he observed, that French military leaders, conscious of the superior strength of the French Army, are determined to capitalize this advantage to the fullest extent. It is but another proof, the author adds, of the baselessness of French fears relative to security.

Military Notes: In the July-August number of the INFANTRY JOURNAL of last year (1932) we reviewed the French plan for the reorganization and unification of the War, Navy and Air Ministries into a consolidated Ministry of National Defence. That change, which had been developed by M. Maginot, was put into effect by Tardieu when he assumed the premiership in the French government in February, 1932. With the advent of the Heriot cabinet, the National Defense Ministry disappeared, and the three separate ministries for the fighting services were revived. Evidently the French found that this consolidation was not productive either of economy or efficiency.

GREAT BRITAIN—*The Journal of the Royal Artillery*—October, 1932.

"A Momentous Mission," by Col. J. H. Marshall-Cornwall, C.B.E., D.S.O., M.C., etc.

An interesting study of the historic mission entrusted to Lieut. Col. Hentsch of the German Great General Staff by General von Moltke, in the early days of the World War. German military historians hold Colonel Hentsch responsible for ordering the retirement of the German First and Second Armies from the Marne to the Aisne in September, 1914. The author takes issue with this point of view, and endeavors to show that both General von Kluck and General von Bulow, commanders of the First and Second Armies respectively, had in fact decided upon the retirement before the arrival of Colonel Hentsch at their command posts. The author believes, that the real explanation of the "Miracle of the Marne" is that the British Expeditionary Force turned up where it was not expected, opposite the gap which had developed between von Kluck's and von Bulow's armies, and that it did so at the moment when both the German and French armies had fought themselves to a standstill. The author concludes that if Colonel Hentsch really did influence the commander of the First Army, General von Kluck, in his decision to withdraw, he probably saved that army from an even greater disaster.

—*Journal of the Royal United Service Institution*—November, 1932.

"The Development and the Future of the Fortress," by Major General Sir H. F. Thuillier, K.C.B.,C.M.G.

An interesting lecture delivered before the Royal United Service Institution upon the part played by fortifications in the World War with the object of determining whether or not it is worth while to build and maintain permanent fortresses for future wars.

The author points out, that at the outbreak of the World War the Franco-German frontier, from Switzerland to Luxemburg, a distance of about 200 miles, was organized for defense by both France and Germany. The French defensive system consisted of two "fortified regions" each comprising a group of fortresses supplemented and supported by a number of smaller forts, field entrenchments and obstacles. The "fortified region of the Vosges" extended from Belfort to Epinal; the "fortified region of the Meuse Heights" extended from Toul to Verdun. Between these regions was an undefended gap, the Troué de Charmes. Between the northen fortified region and the Belgian frontier was a similar undefended gap, the Troué de Stenay. The basic idea was that the fortified regions would cover the mobilization and concentration of the French field armies and hold up any German advance on those areas, while any German attempt to push through the undefended gaps would soon expose their flanks to the fortifications and place the invaders in a very unfavorable situation. The lecturer stressed the difference between these fortifications, whose strength lay in the grouping of large fortresses and smaller forts into a connected self-supporting system covering a large area and the old time single fortresses built around towns.

The Germans had similar defensive installations around Strasbourg and around Metz and Thionville. Since none of these fortifications were attacked, the

lecturer observed, it is impossible to tell how they would have withstood the fire of the type of howitzers used by the Germans elsewhere. Their strategic importance is, however, best evidenced by the fact, that the Germans decided to make their invasion of France through Belgium because they believed that the French fortifications would cause such delays and difficulties as to preclude a swift decision.

General Thuillier estimates the approximate total cost of the French defences of the Vosges and the Meuse at about £16,000,000, an average of £400,000 a year for forty years, or the equivalent to the cost of three or four days of actual warfare. He compares this with the cost of battleships from seven to eight million pounds sterling having a life of twelve to fifteen years. He stresses the fact that the strategic effect of these fortifications was largely psychological. Their existence produced a certain idea as to their strength, yet it is impossible to say now whether this idea was true or false. The Belgian fortresses of Liége, Namur, Antwerp withstood the German attack for only a few days. Maubeuge, the only French fortress attacked in 1914, fared no better. Verdun differed from these, since it was never isolated or subject to all around investment. General Thuillier aptly calls it a strong bastion in a long battle line. Moreover, by the time the Germans began their operations against Verdun, in 1916, France had lost faith in permanent fortifications and had placed her main reliance upon field fortifications, several miles in front of the old fortress. The Germans succeeded in taking Fort Douaumont, but the operation as a whole proved one of the costliest of failures of German arms.

Among the fortresses of the East, only Przemysl, Novo-Georgievsk and Kovno sustained attacks of importance. The first of these, as will be remembered held out for quite some time, finally surrendered when its supplies were completely exhausted and relief was not in sight.

The lecturer found that the average length of the twenty-five principal sieges during 1702-1713 was thirty-four days. They might have been prolonged had the defending garrison held out to the last. Conditions and the customs of the day, the small size and restricted mobility of armies, the hope of receiving substantial reinforcements practically nil, favored capitulation with the honors of war before the final assault. It enabled the beleuguered garrison to withdraw from the fortress, hence this was considered less of a calamity than the total loss of the command which would inevitably have resulted had they resisted to the last. It was Napoleon who first inculcated the idea that a fortress must hold out to the last man.

The development of modern weapons opened a new phase in the matter of siege operations. They enormously increased the tactical strength of the defensive. General Thuillier finds, that the most successful defences of this period were those of the second half of the XIX Century, and that the worst were those of the World War. He believes that there is nothing that permanent defences have done during this period that has not been done, and generally better done by field fortifications. He assigns as one reason for his opinion the fact that the pre-war type of fortress embodied gross tactical defects. These fortresses were as a rule very large and conspicuous; they contained infantry as well as all types of artillery; they lacked the advantage conferred by organization in depth, and they were nearly always sited on commanding ground, hence capture gave to the attacker valuable observation and command over the interior. Moreover, they afforded the enemy an opportunity to concentrate from dispersed artillery positions an overwhelming fire upon each fort in succession. Another reason for his adverse opinion is the fact, that fortresses soon become obsolete hence failure in the face of modern weapons was inevitable.

The lecturer concluded his address by expressing the belief that modern conditions dictate the necessity of organizing the defence in depth. This depth will have to be so great that all-around defence on the lines of the old ring fortress is no longer practicable. Moreover, the area required by modern defence is so great, that it requires an army to defend it. It is unthinkable, he states, to allow so large a force to be invested and isolated, and to be deprived of its mobility. He believes that permanent defences in the future will take the form of large defensive regions, organized in depth on the line of defensive zones developed during the World War. Such fortified regions may serve: first, as pivots on which field armies can operate, as were Verdun and Ypres; second, as a barrier similar to the fortified regions of the Franco-German frontier, or third, to bar a line of advance which cannot be readily turned or passed by. The defending garrison will consist of formations of the field army and not of static fortress troops of lower physical category or inferior training.

In conclusion, General Thuillier observes, that the employment of mechanized formations of considerable size may have some effect upon the question of fortifications, but he disagrees with those, who voice the opinion, that the development of mechanized forces will render defensive works unnecessary. On the contrary, he strongly believes that the more mobile the enemy's forces, the greater will be the necessity to defend important localities by means of defensive works. A study to determine the best type of defence for this purpose, he states, has not yet been undertaken, but he thinks it might take us back to a modified form of the ring fortress. This, however, he believes will be a small place, defensible by a battalion or brigade (regiment), not intended for prolonged resistance, but proof against a raiding force with armored vehicles.

—*The Army, Navy and Air Force Gazette*—March 2, 1933.

"The Fighting Value of The Chinese Soldier", by Brigadier General C. D. Bruce, C. B. E.

Estimating China's total force now under arms at between two and three millions, the author believes that the Chinese Republic has the potential human resources for raising armies beside which the forces of

any other power or even two powers would pale into insignificance. As to the soldierly qualities of the Chinaman, the author points out that the "Chinese Regiment" at the time of the Boxer Rebellion demonstrated conclusively that the Chinese soldier efficiently led by Europeans is second to no other Oriental troops. At the same time, the Empress Dowager's troops also proved their mettle in actions against European troops. Among the chief assets possessed by the properly disciplined Chinese soldier, the author names his quite unusual marching powers; his ability to live almost solely on rice with the consequent reduction of transport requirements to an absolute minimum, the absence of drunkenness, and the capacity of the northern troops to stand almost any kind of weather. China's weakness, the author points out, is her lack of leaders. Japanese leaders are trained in the sternest school of self-denial, of Samurai faith and patriotism such as the Chinese leaders have never known. Last, but not least, is the trained staff which is indispensable to the conduct of modern war. China's armies neither have such a staff, nor is it within measurable distance of being created.

INDIA—*The Journal of the United States Service Institution of India*—January, 1933.

"The New Imperialism in Eastern Asia," by Major B. R. Mullaly, 10th Gurkha Rifles.

The underlying motives of Japanese action in Manchuria, the author writes, are still in many quarters imperfectly understood. He believes that the issue has been clouded by talk of oppression of a weak power by a stronger, and of an Imperialistic Militarism, which seized the world economic crisis as a favorable opportunity to further its sinister ends. In his opinion, the plain facts of strategic and economic necessity have been overlooked. The author dismisses as a myth the designs against the Philippines, Australia and New Zealand, frequently attributed to Japan. Although over-population is Japan's greatest problem, the author does not believe it incapable of solution without resort to the desperate expedient of territorial expansion. If such plans were even seriously entertained by Japan, the author finds ample evidence of it having been abandoned in favor of industrial expansion. Industries, however, require raw materials, and Japan is lacking in many of the essentials required by her rapidly expanding industries. Japanese policy in Manchuria is prompted in part by this search for raw materials. The menace of Soviet Russia is another motive behind this policy.

The Japanese fervently believe in the righteousness of their course, the author states, and they regard their country as the only bulwark against Bolshevism in the Far East. She cannot understand American and European attitude in view of all that the Powers have suffered at the hands of China for years. By forestalling Russia in Manchuria, Japan feels she is serving the true interests of civilization. They believe, that a peaceful well-governed Manchuria will not only provide a check on the flow of poison which is being poured into China, but will also prevent its spread throughout the Pacific and beyond.

Tracing the policy of imperialism of Tsarist Russia, which was prompted by the need for ice-free outlets to the sea, and the consequent development of the Russian sphere of influence in Mongolia, the author shows that Soviet Russia not only continued the Tsarist policy, but by efficient organization succeeded in adding Outer Mongolia to the wall of sovietized states, which she has built up along her Asian borders. Chinese Turkestan, farther to the west, is another great territory within the Soviet program of development. The vast natural resources of that region, according to the author, are to be exploited and made to serve the ends of the new Russian Imperialism. Whether or not Soviet Russia will succeed in Turkestan, as she did in Outer Mongolia, remains to be seen. Its importance to British interests and to China, the author observes, needs no emphasis.

Blocked by Japan in Manchuria, Russia transferred her attention to Mongolia and Chinese Turkestan, and it is there, the author believes, that she is making her preparations for the next stage in that march to the south, which was the keynote of Tsarist Imperialism, and which is the inevitable manifestation of the new imperialism of Soviet Russia. The author quotes the socialist Bertrand Russell's book, "The Problem of China," to the effect, that "the Asiatic expansion of Bolshevik influence is * * * but a continuation of the traditional Russian policy, carried on by men * * * more intelligent, and less corrupt than the officials of the Tsar's regime * * *." The added object of this expansion, the author points out, is to provide a jumping-off ground for a better dissemination of the Bolshevistic tenets in the countries beyond.

Under the circumstances, the author concludes, Japan's determination to keep Bolshevism at arm's length from her shores is not at all extraordinary. It is useless, he observes, to evade the fact that Manchuria must be either Russian or Japanese. Russia, once established in that troubled province, would be in a favorable position to carry on her intensive campaign aimed at the disruption of China, and it would better enable her to exploit Japanese labor troubles which are in inevitable concomitants of intensified industrialization.

In the author's opinion, Japan has, by her determined action in Manchuria, delivered a well-timed blow at the new imperialism in Eastern Asia.

JUGOSLAVIA—*Peshadiski Glasnik*—July, August, September, 1932.

"The Military Orator," by Lieut. Col. Svetozar C. Popovitch.

Citing Napoleon's farewell address to his Old Guard, and other addresses by famous military leaders, the author gives expression to the belief, that the military orator still is indispensable, and he points out that the World War presented numerous occasions when commanders were able to influence the outcome of an action by an appropriately worded appeal to their

command. He recommends the cultivation of the art of oratory to all officers.

—*Ratnik*—November, 1932.

"Casualties of Serbia in the Wars of 1912-18", by Col. Mita Petrovich, Med. Corps.

Serbia, with a population of six million, according to the author, called to the colors in connection with the two Balkan wars and the World War not less than 2,784,000 men of whom 1,250,000 made the supreme sacrifice. The casualties in the first Balkan war amounted to 39,000 of whom 5,000 were killed in action; 16,000 more died as the result of wounds or disease. In the second Balkan war 9,000 were killed in battle, 5,000 were victims of the Cholera. The number wounded amounted to 36,000. The World War casualties reached the staggering total of 1,213,000 of whom 52,000 were killed in action, and 807,000 died of wounds or disease. The retreat from Serbia in 1915, cost 138,000 lives, and 306,000 died in Albania. 630,000 deaths are credited by the author to the civil population.

The author gives evidence of great familiarity with American journalistic methods, and a flare for the sensational. He calculates that, in the three wars, Serbia sacrificed 7,800,000 liters of blood, which he states is the equivalent of the load of a freight train 4 kilometers long, consisting of 780 cars of 10-ton (metric) capacity.

SPAIN—*Revista de Estudios Militares*—November, 1932.

"The Soviet Army As I Saw It," by Enrique Diaz.

An interesting account of personal observations of the Soviet army made by the author within the year. He emphasizes the fact that Soviet Russia is a dictatorship in the fullest sense of the word, and that army bears the imprint of that system which is based upon absolute control and discipline. The author states that discipline in the Soviet army is absolute and implicit. He refutes as a myth the oft repeated allegation that there exists no distinction of rank in the Soviet army. The term "tevarish" (comrade) has completely disappeared from the Bolshevik form of address. The salute is obligatory within the barracks compound and upon all official occasions. Members of the same regiment salute at all times, superiors and subordinates doing so simultaneously.

The author writes that military horseshows are as brilliant social affairs as they were in the days of the Tsars. He notes that on one of these occasions he saw General Budeny, famous cavalry leader of the Soviet army, wearing numerous decorations, descend to the arena accompanied by officers of his staff, to felicitate the prize winners while the military band intoned the *Internationale*, Soviet Russia's official anthem. The scene, the author adds, was strangely reminiscent of another day.

The author comments upon the close relationship that exists between soldier and worker, between factory and barracks. It imposes upon the Soviet army a social character that differentiates it from all other armies. Russia is pervaded by a military spirit the author states, that is unknown in any other country. "Everything is dictatorized, disciplined, subjected to the unquestionable and unquestioned will of the government," the author writes. "Everything is militarized, the army, the police with its military formations (O. G. P. U. or Tcheka), the factories and civil organizations for both sexes." "Ossoaviachim" is one of these militarized civilian organizations for the promotion of military aviation and chemical warfare. It carries upon its rolls millions of members, males and females.

—*Revista de Estudios Militares*—January, 1933.

"Military Expenses of France," by Anonymous.

An analysis of data compiled by the Spanish General Staff on the subject of French military appropriations. The calculations are based upon the 1930 valuation of the French gold franc. On a comparative basis, appropriations for the land forces, expressed in millions of francs, were as follows:

Year	*Homeland*	*Colonies*	*Totals*
1913	6.380	1.965	8.345
1922	4.600	2.296	6.896
1927	4.200	2.213	6.413
1930	5.050	2.499	7.594

The analyst observes that while the military expenses for the homeland have been reduced by 21% compared with the 1913 appropriations, those for the colonial establishment show an increase of 27%. The sharp reduction shown for 1922 and 1927, the author attributes to economies effected by the use of reserve supplies, retrenchments on repair and maintenance of buildings and installations, and a pay schedule to all ranks materially reduced by the devaluation of the gold franc. On the other hand, the increase shown between 1927 and 1930, the author believes, was due to the necessity of replenishing reserve supplies, and the readjustment of salaries to the actual cost of living. As to colonial troops, the author states increased appropriations were caused partly by the increased cost of supplies, and partly by an actual increase in the authorized strength of the colonial army. Reduction of the term of service with the colors and needs of the newly occupied territories necessitated a corresponding increase in the strength of the colonial establishment.

In 1913 France had only 14 land planes and 8 hydroplanes, hence the author disregards aviation appropriations for that year. Subsequent appropriations were as follows:

1922	1,000 million gold frcs.
1927	1,400 " " "
1930	2,140 " " "

The sharp increase is largely attributed to increased cost of production and higher pay schedule for personnel compared to that of land and sea forces. The increase in the number of airplanes in active service in the homeland, the author finds, did not keep pace with the increased appropriations. In 1925, France had 1,180 land and sea planes. By 1930, their number had increased only to 1,210.

Organization Activities

52nd Cavalry Brigade

Columbia, Penna.

ON the evening of March 28th, 500 officers and former officers of the National Guard of Pennsylvania, as well as many members of the Senate and House of Representatives of the Pennsylvania Legislature, Governor Gifford Pinchot, and the majority of his cabinet, and former military associates, gathered in the Penn-Harris Hotel, Harrisburg, to honor Major General Edward C. Shannon upon the occasion of his promotion to command the 28th Division, Pennsylvania National Guard.

General Shannon, who for ten years has commanded the 52nd Cavalry Brigade, is Lieutenant Governor of Pennsylvania, and is highly regarded both in public life and in military circles.

Among the guests of the National Guard who attended the banquet were Major General Paul B. Malone, Commanding General 3rd Corps Area, Major General Guy V. Henry, Chief of Cavalry, and Major George S. Patton, Jr., 3rd Cavalry, U.S.A.

305th Cavalry

Philadelphia, Pennsylvania

WEDNESDAY, April 19th, the 305th Cavalry added one more Organization Day to its history. The important event of the day, an exhibition ride performed by officers of the Regiment, was a splendid commentary on the training and handling of mounts. During the greater part of an hour 16 riders guided their horses through a series of evolutions without a single command. Upon the completion of the ride, 8 officers competed for a prize in a jumping exhibition. Officers and guests then moved to the Banquet Hall (1st City Troop Armory), where a receiving line passed before Colonel George T. Bowman, Cav. Chief of Staff, 62nd Cavalry Division, and the field officers of the Regiment.

Captain William J. Taylor, Jr., Regimental Adjutant, then read a brief history of the Regiment recalling events that transpired since last Organization Day.

We have had brief communications from three of our officers on active duty. All are very busy but enjoying their work. Second Lieut. Robert O. Webb, Troop E, is leading a busy life at the Special Course for National Guard and Reserve Officers, Cavalry School, Fort Riley, Kansas. First Lieutenant Ernest V. McClellan, Adjutant of the 2nd Squadron, is on duty with the Civilian Conservation Corps at Fort Howard, Maryland, where he is engaged in learning the ramifications of handling, mess and supply of about 200 civilian forestry workers. Second Lieutenant Thomas L. Shelley, Troop F, on duty with the Civilian Conservation Corps at Carlisle Barracks, Penna., is enjoying his duties but claims to be too busy to tell us much about them as yet.

In Philadelphia, officers of the Regiment are busily training every week, in preparation for the summer's active duty training period at Fort Myer, Virginia. This training includes: Conferences and Map Problems, Mounted and Dismounted Drill with practice in giving commands, Rifle and Pistol Practice, and Saber work.

306th Cavalry

Baltimore, Maryland

INSTRUCTION in Equitation for Reserve Officers has been resumed at Fort Hoyle, Maryland, and again the interest in this work is so great that the number of mounts available is not sufficient to accommodate all the officers desiring to attend. Sufficient progress has been made to enable instruction in jumping to be given to all officers enrolled. This phase of riding arouses more interest among Reserve Officers than any other form of riding.

Many officers of the regiment have applied for active duty with the Civilian Conservation Corps. This duty should provide very valuable experience similar to that which an officer would be called upon to perform in case of an emergency. Captain John P. Dean and 1st Lieutenant Kenneth S. White of the 306th Cavalry have already been detailed for this duty, and it is hoped others will soon be detailed.

Second Squadron and Machine Gun Troop, 306th Cavalry

Washington, D. C.

MAJOR H. C. Dagley, Cavalry, Unit Instructor, returned on March twenty-fifth from two months spent as a patient in the Army and Navy General Hospital, Hot Springs, Arkansas.

Training designated to prepare the officers for their summer training missions is now in progress. The most of the instruction is being given by Reserve Officers, with the Unit Instructor acting as supervisor.

307th Cavalry

Richmond, Virginia

MANY applications are being received from officers desiring active duty with the Civilian Conservation Corps.

Lieutenants Louis B. Powell and Walter L. Renn, Jr., 307th Cavalry, have been ordered to active duty with the C. C. C.

First Lieut. Sam H. Franklin, Jr., is conducting a riding school in Lynchburg in addition to his duties

as Instructor in Equitation at Randolph-Macon College for Women.

Information from the War Department that 2nd Lt. Woods G. Talman is now eligible for assignment in the Organized Reserves as he was honorably discharged from the Virginia National Guard, Sept. 9, 1932.

Third Squadron and Machine Gun Troop, 307th Cavalry

Norfolk, Virginia

RESERVE activities in the Norfolk Area were inspected by Colonel George T. Bowman, Cavalry Liaison Officer for Organized Reserves, Third Corps Area, and Chief of Staff of the 62nd Cavalry Division, on April 13 and 14, 1933.

Colonel Bowman was entertained at luncheon on April 13 by the Officers of the Squadron at The American Legion Drum and Bugle Corps Club, Norfolk, Va. High ranking Reserve Officers of Norfolk and Portsmouth were present, and greetings from the City of Norfolk were extended by the Director of Public Safety, Colonel Charles B. Borland.

Squadron Headquarters was recently moved from the Armory Building on Princess Anne Road to spacious quarters on the Military Reservation, Fort Norfolk, Foot of Front Street, Norfolk, Va.

Troop Schools are progressing very satisfactorily. Conferences are now being devoted to preparation for active duty training. Instruction is being given in Minor Tactics and Cavalry Weapons.

Four Officers of the Squadron have applied for six months' active duty with the Civilian Conservation Corps, and one officer, Lieut. W. L. Renn, Jr., was ordered to Fort Washington, Md., for this work on April 22, 1933. The other officers who applied are:

1st Lieut. Southgate W. Taylor, 307th Cav.
2nd Lieut. Elijah P. Montgomery, 307th Cav.
2nd Lieut. Kenneth W. Chapman, 307th Cav.

308th Cavalry

Pittsburgh, Pennsylvania

SINCE the opening of the Civilian Conservation Corps Camps and since Active duty with these Camps has been opened up to Reserve officers, two officers from the 308th Cavalry have been ordered out.

1st Lieutenant Alexander M. Stewart from Altoona, Pa., received his orders with the first contingent to go from Western Pennsylvania.

1st Lt. Truman G. McMullan was also ordered out, and both officers write that they are finding the duty pleasant and interesting.

There were eighteen applications for this duty from this regiment, and every one hopes that more of our officers will be afforded the opportunity to go.

On Thursday, May 4th, at the Keystone Club, Pittsburgh, Pa., a luncheon was held in honor of Colonel George T. Bowman, Cavalry, Chief of Staff, 62nd Cavalry Division, and Liaison Officer for the Organized Reserves at Headquarters, Third Corps Area, who is to retire upon reaching the age of sixty-four years on June 30, 1933. Colonel Bowman's many friends will miss him and regret his retirement.

On Thursday, April 27th, Lieutenant and Mrs. Alexander O. Froede entertained Colonel and Mrs. Cherrington, Major and Mrs. Hubbard, Captain and Mrs. George W. Conner, and Lieutenant L. S. Goldworthy, at their home in Brentwood.

862nd Field Artillery (Horse)

Baltimore, Maryland

THE regiment is now training for the Citizens' Military Training Camp next July. We are holding four conferences a month to refresh our officers on the elementary training of recruits.

The riding classes at Fort Hoyle, suspended during the winter, have been resumed. Unfortunately there are not enough horses to mount all the officers who wish to ride, and many have to be disappointed. Major William H. Skinner, 306th Cavalry Reserve, has been doing excellent work as instructor in this class. This training is producing gratifying results both in improving the skill of reserve officers in riding and also in arousing among them interest in horses. The interest in good horses, so general in this section, is reflected in the desire of many reserve officers to ride as often as they can do so.

Also our pistol firing classes are well attended. A recent competition between the reserve officers and the employees of the Post Office Department resulted in a victory for the latter by a narrow margin. It is planned to have other competitions among these teams and also the Police Department and National Guard.

The Cavalry Club of the Southwest

By 1st Lieutenant Basil F. Basila, 311th Cavalry, President

HORSEMANSHIP and rifle and pistol marksmanship are abilities that for many years have "earmarked" a Texan, and particularly that part of the State's population residing in the southwestern part of Texas. With the assignment of Colonel D. D. Tompkins at Unit Instructor of the 156th Cavalry Brigade at San Antonio, the War Department threw a "natural." It placed a horseman in his natural setting—amidst horsemen. And, to complete the joy of all concerned the rifle "bugs" and the pistol "nuts" soon discovered the Colonel to be an ardent exponent of accuracy with small arms.

Our instructor had not been long with us ere it was suggested at a Cavalry Troop School held in February, 1932 that a Cavalry Club be organized. Showing evidence of our Cavalry training, action was had immediately with the result that during that same evening four officers were elected to direct the Club's activities for the first year. Captain George M. Roper, Cav-Res., was elected president, Captain Robert Z. Hurt, Cav-Res., vice president, 1st Lieutenant Basil F. Basila, Cav-Res., secretary, and 1st Lieutenant Alan W. Hall, Cav-Res., treasurer.

At the initial meeting of the Executive Committee held a fortnight later a constitution which had been prepared by the secretary was adopted wherein the

object of the organization was set forth as "The aim and purpose of the CAVALRY CLUB OF THE SOUTHWEST shall be to foster the spirit of Cavalry and the love of a horse; to encourage and promote the development of bold and fearless horsemanship; to stimulate interest in military science, education, and training, and preparation for National Defense; and to further the esprit de corps of its active members, Officers of Cavalry of the Army of the United States, throughout the great Southwest—by tradition the home of the mounted soldier."

It was also decided at the initial meeting of the Executive Committee that the Club is to remain at all times non-political, and to operate as a complement to the local chapter of the Reserve Officers Association.

Starting with a charter membership of ten officers of the Cavalry Reserve, the Executive Committee soon thereafter opened the Club to all officers of the Army of the United States on the basis of three kinds of membership—active, associate, and honorary. Active membership was limited to Cavalry officers of the three components of the Army, and associate membership was opened to all other officers of the Army of the United States. Honorary membership was limited to persons of distinction who have rendered signal service to the National Defense. Honorary membership has been tendered and accepted by the Chief of Cavalry, Major General Guy V. Henry, the present Corps Area Commander, Major General Edwin B. Winans, Colonel George P. Tyner, G.S.C., Chief of Staff, Eighth Corps Area, Colonel Tommy Tompkins, Colonel D. D. Tompkins, Colonel Gordon R. Catts, Colonel David Biddle, and Colonel Innis P. Swift.

At the beginning our activities consisted of cross-country rides on alternate Sundays, and a weekly class in elementary equitation, mounts being obtained thru a Club arrangement with one of the local stables. Qualified officers of the Cavalry Reserve would take turns about acting as Sunday ride leaders and class instructors. The elementary equitation class proved to be quite an attraction, for here the ladies of the membership had an opportunity to learn the rudiments of good riding under capable instructors and at no cost.

Regulations governing the Officers Reserve Corps permit Unit Instructors to requisition a number of rifles and pistols together with an allowance of ammunition for instructional purposes. This opportunity has been taken advantage of fully. Outdoor and sub-caliber gallery rifle practice go on throughout the year. Our small-bore firing is held on the ranges of the neighboring 9th Infantry at Ft. Sam Houston through the courtesy of the Regimental Commander. At first Captain T. F. Wessels and later Captain Frank W. Halsey of that regiment assisted by the crack regimental small-bore team acted as our instructors.

At our first pistol practice, we discovered a number of "top-notchers," polished experts with a handgun. This discovery led to the organization of a pistol team which subsequently challenged officers of all army regiments in and around San Antonio. Successive victories were registered over officers of the 12th Field Artillery, 15th Field Artillery, and the 23rd Infantry, all of Fort Sam Houston. Feeling our "oats" we journeyed to Fort Brown at Brownsville, Texas, 330 miles away on the Rio Grande and there lucked out over the officers of the 12th Cavalry by the extremely close score of 1302 to 1300. Next a civilian team from a nearby city was snowed under.

With five consecutive victories and no defeats behind them, the pistol team together with some 15 club members as "rooters" journeyed to Fort Clark, 136 miles away and there crossed pistols with the officers of the 5th Cavalry. Here we learned "how to take it," losing for the first time, the score being 1283 to 1275.

The Cavalry Club of the Southwest has grown rapidly since its organization some 15 months ago, the membership at present being 113. Club dues are only $3.00 a year. Monies obtained from dues are used for general club purposes such as stationery, stamps and range necessaries that cannot be requisitioned.

The present size of the Club and the manifold activities that we are engaged in have made it necessary to departmentalize each activity. This was accomplished by broadening the duties of the team captains to include complete supervision of their specialty among all club members. 1st Lieutenant Clay McFarland, 141st Infantry, Texas National Guard, is captain of the pistol team and has charge of all pistol firing. 2nd Lieutenant Meredith C. Engel, Cav-Res., 5th Cavalry, is captain of the small-bore team and has general charge of the conduct of this phase of club activity.

The rapid growth and steadily increasing interest in the Club is the outcome of following the "balanced ration" principle in arranging our activities. A pistol practice schedule mixed in with a rifle practice and riding schedule seasoned with frequent socials for members and their ladies make membership most attractive.

March 1st witnessed the passing of our first anniversary on which date the newly elected officers for the new year were installed by Colonel Tompkins. The writer was elected president, Major Henry A. Bartels, Dent-Res. vice-president, 2nd Lieutenant Robert D. Maxwell, Cav-Res. corresponding secretary, 2nd Lieutenant Edward A. Obergfell, FA-Res. recording secretary, and Captain William K. Alston, QM-Res. treasurer.

Through frequent association with one another in a semi-official capacity much of the "newness" that characterizes a reserve officer has been worn off. The many responsibilities shouldered by various of our membership as a result of the activities undertaken has given each a keener insight into what is going to be expected of him in the event of a national emergency.

318th Cavalry

La Grange, Illinois
Lieut. Col. Wm. A. Peterson

THIS marks the first appearance of 318th notes in the pages of the CAVALRY JOURNAL. It's a real publication and we're glad to have a little niche in it.

The 318th, organized soon after the war as a Chicago reserve regiment, later had its headquarters transferred to La Grange, leaving its friendly rivals, the 317th, in control of the Windy City. The 318th has a roster of 237 officers, of whom 133 live in Chicago and 104 in Northern Illinois.

First Lieut. R. H. Colwell has just completed a three months' tour of duty at the Cavalry School at Ft. Riley, Kansas, and has a fund of information with which to prove that aviation, so far as cavalry is concerned, is just a little mosquito, tantalizing but puny, buzzing around but doing no great harm, and that motorization is still in the Beau Brummel stage of development—its nice shiny integuments easily soiled and its peripatetic extremities requiring pleasantly dry and hard thoroughfares!

Our regiment will not be ordered to O.R.C. camp this summer, and possibilities of C.M.T.C. work are uncertain. However, some of our members are signing up with the Civil Conservation Corps and getting six months of good pay and wholesome outdoor life—not to mention trout fishing of a Sunday afternoon! Capt. Wm. N. Todd, Jr., Cav (DOL), our unit instructor, has been called out to show the C.C.C. how to do it; as a result our correspondence work is piling up on his desk in a state of innocuous desuetude.

We had a very gory Command Post Exercise in the offices of the Illinois Reserve District Headquarters on May 6—one contact patrol was completely wiped out; there would have been more casualties had not a large number of "softies" stayed at home to get the sad radio news regarding their favorite horse at the Kentucky Derby.

The CPX held during the winter was attended by 60 officers; the men were stationed in officers' homes at the north end of Chicago, each home representing a patrol or higher unit; the local telephone establishment was used for communication purposes and proved that it would be inadequate for a real, first class war particularly, as our Director, Col. Edward Davis, Cav (DOL), Chief of Staff of the 65th Cavalry Division pointed out, if the officers insisted upon observing the amenities in their phone conversations, such as: "This is So-an-so; how are you? I'm fine, thank you; I beg to report that my troop is out of ammunition and hope that you may see fit to send us more at your earliest convenience." Col. Davis, in a lengthy critique of the CPX, stressed little things, such as the importance of concise messages, whether verbal or written, and the clarity of handwriting.

Our experience with CP exercises gives us more practical training in and grasp of communication and record-keeping mechanics under battle conditions than volumes of written explanations. Nor are the exercises without humor, as when two lieutenants in command of phantom patrols sit at adjacent desks and refuse to honor messages sent by each other within 20 minutes of the time of writing, on the ground that it would take a mounted messenger that long to deliver the messages in a real campaign.

DOUGLAS MCCABE,
2d Lieut., 318th Cav

Officers of the 63d and 64th Cavalry Division, Organized Reserve

63rd CAVALRY DIVISION, James Building, Chattanooga, Tenn.

LT. COLONEL
Foley, Oscar, Cav., Chief of Staff, Chattanooga

CAPTAIN
Scanlan, H. V., Cav., Adjutant General

Unit Instructors

MAJORS
Gallup, F. H., *F. A.* Charlotte, N. C.
Besson, F. S., *C. E.* Nashville, Tenn.

DIVISION HEADQUARTERS

LT. COLONELS
Conoley, A. G., *Sig. Res.*
Chrosniak, J., *Ord. Res.*
Cooper, H. P., *I. G. Res.*
Felix, D. D., *J. A. Res.*
Murphy, P. G., *Q. M. Res.*

MAJORS
Bethea, W. L., *Dent. Res.*
Green, F. T., *A. G. Res.*
King, E. D., Jr., *Vet. Res.*
Lewis, F. M., *Q. M. Res.*
Petit, A. J., *F. D. Res.*
White, Robb, Jr., *Chap. Res.*

CAPTAINS
Little, M. R., *A. G. Res.*
Milam, J. W., *J. A. Res.*
Sweet, M. J., *Chap. Res.*

1ST LIEUTENANTS
Chambliss, J. R., Jr., *Cav. Res.*
Orr, F. W., *Cav. Res.*
Wallis, R. J., *A. G. Res.*

HEADQUARTERS, SPECIAL TROOPS

(All Cavalry Reserve)

MAJOR
Cockrell, N

1ST LIEUTENANTS
Cumming, J. R.
Dapp, S. A.
Talmadge, H. E.
Wright, J. C.

2ND LIEUTENANTS
Bailey, J. E.
Brown, T. R.

HEADQUARTERS TROOP

(All Cavalry Reserve)

1ST LIEUTENANTS
Palmour, J. E. Jr.
Persall, J. T., Jr.,
Richardson, R. J.
St. John, T. F.
Stanley, H. S.

SIGNAL TROOP

(All Signal Reserve)

CAPTAIN
Kaufmann, B.

1ST LIEUTENANTS
Gerks, I. H.
Lovette, F. D.
Wilson, C.
Wilson, H. R.

2ND LIEUTENANTS
Herrick, H. B.
Meiere, E. J.
Owens, S. H.
Pettigrew, A. J.
Thom, J. R. C.

463rd TANK COMPANY (LIGHT)

(All Cavalry Reserve)

1ST LIEUTENANTS
Callaway, H. M.
Orr, D. M.
Sills, T. H.

2ND LIEUTENANTS
Fitts, P. W.
Hanner, W. O.

863rd FIELD ARTILLERY (OR)

(All F. A. Reserve)

COLONEL
Berry, H. S.

LT. COLONEL
Blount, J. A.

MAJORS
Kline, J. H.
Sprinkle, D. M.

CAPTAINS
Anderson, C. F.
Hay, A. B.
Manning, C. S.
Wimberly, V. M.

1ST LIEUTENANTS
Demo, D. J.
Francis, W. H.
Jones, T. A., Jr.
Murray, L. B.
Walters, J. B.

2ND LIEUTENANTS
Brogden, C. A.
Davis, C. F., Jr.
Fowler, W. O.
Greenwald, J. L.
Gwin, S. L., Jr.
Henegar, H. A.
Hightower, R. G.
Howell, E. W.
James, L. W.
Jones, W. B.
Kelso, R. B.
Langley, G. G.
Lavallet, E. S.
LeCroy, C. R.
Leonard, J. H.
Manly, C. E.
Payne, R. W.
Powell, G. R.
Smith, E. C.
Stone, B. M.
Stoves, W. H.
Turlington, R. C.
Ward, J. L.
Wood, G. A., Jr.

ATTACHED MEDICAL

CAPTAIN
Ingram, T. H., *Vet.*

1ST LIEUTENANTS
Kimzey, F. B., *Med.*
Slaton, W. W. *Dent.*

ATTACHED CHAPLAIN

1ST LIEUTENANT
Spaugh, H., *Ch.*

463rd ARMORED CAR SQUADRON

(All Cavalry Reserve)

CAPTAIN
Carson, W. B.

1ST LIEUTENANTS
Jester, J. C., Jr.
Kaufman, E.
Moore, R. L.
Stoughton, C. B.
Townsend, C. B.
Vandiver, C. L.

2ND LIEUTENANTS
Earnest, D. L.
Fordham, J. B., Jr.
Garner, A. N.
Heslin, S. V.
McCaslin, T. F.
Minter, R. G.
Penton, G. E.
Sherlock, C. W.
Wright, G. F.

403rd ENGINEER SQUADRON (Mtd)

(All Engineer Reserve)

MAJOR
Higley, A. W.

CAPTAIN
Sawyer, H. A.

1ST LIEUTENANTS
Kay, F. F.
Lever, J. C.
Qualls, E. H.
Roberts, G. M.

2ND LIEUTENANTS
Black, G. S.
Cobb, C. C.
Wright, A. R.

Q. M. TRAIN HQ.

MAJOR
Bellew, L. A., *Q. M. Res.*

155th CAVALRY BRIGADE

Unit Instructors

LT. COLONEL
Brown, L. G.
Memphis, Tenn.

CAPTAINS
Rathjen, H. F.
Asheville, N. C.
DeLangton, F. C.
Nashville, Tenn.

HEADQUARTERS & HEADQUARTERS TROOP, 155th CAVALRY BRIGADE

(All Cavalry Reserve)

LT. COLONEL
Mead, R. A.

CAPTAIN
Anderson, C. A.

1ST LIEUTENANTS
Barnes, A. D.
Blades, R. F.
Cone, C. J.
Griffith, L. A.

2ND LIEUTENANTS
Jones, N. W.
Mallard, L.
Thomas, E.

309th CAVALRY

(All Cavalry Reserve, except as otherwise designated)

LT. COLONELS
Moore, J. W.
Osborne, J. B.

MAJORS
Carter, J. C.
Clayton, J. W.
Dyer, H. R.
Moore, H. C.

CAPTAINS
Bruce, E. C.
Camp, V. N.
Clark, C. A.
Donaldson, D.
Mitchell, S.
Nickel, W. H.
Park, A.
Southard, D. L.

1ST LIEUTENANTS
Angle, E. W.
Barnes, A. D.
Baughn, W. J.
Beasley, J. C.
Belcher, L. W.
Bennett, C. N.
Bloodworth, H. P.
Bonner, J. C.
Brown, H. D.
Brown, R. F.
Dean, R. A.
Curtis, C. A.
Hamilton, G. C.
Hartman, E. W.
Holder, J. C.
Jeter, D. D.
Johnson, J. E.
Kraeger, A.
Loudermilk, J. B.

McCormack, C. R., Jr.
McRae, R. H.
Mitchell, C. S.
Parker, C. O.
Rasco, D. D.
Reynolds, W. M.
Shaw, R. B.
Shearer, C. N.
Sheffield, J. W.
Sledge, L. C.
Strickland, W.
Tiger, D.
Wendt, W. F.

2ND LIEUTENANTS
Adams, J. C.
Agnew, R. T.
Armstrong, G. C.
Arnold, W. C.
Askew, J. T.
Ayer, G. D.
Backer, S.
Beamer, J. P.
Beeson, J. T.
Bell, C. E., Jr.
Bennett, H. W.
Benson, O. L.
Berry, W. M.
Betschick, A. E.
Betschick, G. V.
Bishop, M. H.
Blitch, H. L.
Blumenthal, S. M.
Bolton, L. B.
Bond, C., Jr.
Bradberry, R. T.
Brock, G. G.
Bryant, C. J.
Burns, L. M.
Burwell, C. M.
Bush, M.
Byrd, O. L.
Calloway, W. R.
Carlton, J. T.
Carpenter, F. L.
Carson, J. M.
Caskey, G. M.
Cato, S. H.
Chandler, J. C.
Chastain, F. L.
Clay, J. P.
Cohen, H.
Collier, W. P.
Connell, J. K.
Costa, J. L.
Cothren, B. J.
Davis, K. B.
Dawson, O. P.
Dewitt, W. E.
Doster, J. C.
Edmondson, H. R.
Ellis, A. J.
Ellison, G. W.
Eppes, B. S.
Feagin, R. D., Jr.
Feiler, E. J.
Fortson, H.
Gaines, A. B.
Gardiner, J. T., Jr.
Gerdine, T. F.
Gladin, C. B.
Gravely, W. W., *Dent.*
Grimes, W. R.
Groves, J. Z.
Gwyn, C. R., Jr.
Hargrove, A. G., Jr.
Head, S. A.
Henry, W. C.
Hinely, L. W.
Hollis, M. D., Jr.
Hope, C. A.
Hubert, J. H.
Huggins, T. K.
Hughs, M. P.
Hutchinson, H. B., Jr.
Joselove, J. F.
Keene, R. M.
Kennedy, C. S.
King, W. A.
Lambert, J. G.
Leathers, L. M., Jr.
Lewis, A. I.
Lovin, C. W., *Chap.*
Lumpkin, F. G., Jr.
Lyon, E. E.
McDonald, J. N.
McGee, J. B., Jr.
McIntyre, J. W.
McIntosh, O. T., Jr.
McNeal, W. H.
McWhirter, O. M.
Madden, J. L.
Maddox, R. C.
Mattox, J. C.
Mauldin, A. T.
Mercer, J. A.
Miller, J. B.
Miller, J. S.
Milton, P. H., *Med.*
Montgomery, R. A.
Morcock, S. J.
Nance, R. F.
Newton, A. S.
Pilgrim, G. E.
Porter, A., Jr.
Price, C. D.
Putnam, E. H.
Reid, R. L.
Risien, R. S.
Ritchie, T. E.
Ritter, T.
Robinson, E. A., Jr.
Roby, A. A.
Rosenthal, M.
Sams, W. A., Jr.
Sanford, H. R.
Scarborough, J. C.
Schilling, C. F.
Schmidt, H. L.
Searcy, F. H.
Shearer, H. F.
Shell, R. H.
Sheppard, M. D.
Shiver, I. M., Jr.
Shull, R. E.
Smith, C. R.
Smith, V. S.
Story, E. P.
Strickland, W. M., Jr.
Tate, W.
Terrell, F. C.
Terry, G. O.
Twyford, L. S.
Vaughn, W. A.
Voelkel, K. E.
Walker, B. S.
Watson, M. B.
Webb, C. H.
Webster, H. H.
White, F. J.
Whyel, G. L.
Wilkins, S. B., Jr.
Willingham, R. H.
Willingham, W. D.
Womack, C. H.
Wood, L. C.
Wooten, W. E.
Young, W. H., Jr.

310th CAVALRY

(All Cavalry Reserve, except as otherwise designated)

COLONEL
Fair, W. A.

MAJORS
Bailey, J. E.
Blanchard, H. D.
Davis, G. C.
Gaillard, H.
Spence, D. A.
Robertson, R. C., *Med.*

CAPTAINS
Crowe, J. W.
Haag, R. H.
Hunter, E. L.
McComb, A. W.
Hart, H. B., Jr.
Jeffries, W. N.
McMillan, E. E.
Reitz, P. R.
Saunders, H. G.
Stribling, A. C., *Ch.*
Swindell, R. G.
Whitener, J. B.

1ST LIEUTENANTS
Bruton, T. W.
Clements, F. B., Jr.
Dean, L. Y., III
Forman, G. P., Jr.
Frank, P. H.
Goodyear, A. W., Jr.
Herndon, E. M.
Horton, P. E., Jr.
Lewis, A. N.
Lowrence, C. U.
Morris, G. L.
Parker, J. L.
Pettus, C. M.
Preston, F. E.
Randolph, G. B.
Ricker, R. B.
Rymer, G. W.
Scobey, J. W.
Simms, R. E.
Smith, O. M.
Thatcher, W. C., Jr.
Thompson, H. W.
Woodall, J.
Sanders, S. H., Jr., *Med.*
Soniat, S. L., *Dent.*

2ND LIEUTENANTS
Alexancer, T. W.
Amen, M. F.
Bancroft, G. W., Jr.
Bawsel, C. M.
Beck, W. L.
Bell, J. I.
Blakemore, J. H.
Bond, J. P.
Bowden, T. G.
Cain, A. S., Jr.
Castle, A. C.
Chable, W. J.
Cochran, G. T., Jr.
Cone, B.
Davis, J. K.
Davis, S. G.
Doyle, C. R.
Fischer, W. A.
Fort, R. E., Jr.
Foy, R. E.
Fraser, J., III
Frazer, G. P.
Frazer, P. W.
French, R. M.
Grainger, T. B.
Gibbons, J. F., Jr.
Gilbert, R. C.
Harris, J. J.
Herbert, J. M.
Herndon, J. E.
Horst, C. F., Jr.
Hull, C. G., Jr.
Hutchins, C. C.
Koellein, C. L., Jr.
Kuhn, C. B.
Lane, D. R.
Leathers, J. P.
LeBreton, A. J., Jr.
Lee, R. E.
Lockwood, W. B., Jr.
McAlister, R. S.
MacFarland, L. P.
Maier, A. H.
Malone, J. L.
Martin, F. L.
Moffitt, J. V., Jr.
Moss, H. K.
Noel, J. M.
Oakes, H.
Ogden, D. R.
Page, C. L.
Parks, J. J.
Pullium, V. G.
Reeves, D. F. C., Jr.
Rehm, W.
Richards, J. W.
Rogers, C. B., III
Rogers, C. M. A., Jr.
Rudesill, F. O.
Rungee, J. P.
Sargent, E. W.
Schneider, J.
Sharpe, J. T.
Simons, A.
Smith, J. A., Jr.
Smith, R. B.,
Sparks, K., Jr.
Stephenson, F. E.
Stewart, W. L.
Taylor, J. D.
Thompson, C. K.
Thompson, J. D.
Thompson, W. N., Jr.
Touchstone, J.
Trentman, W. H.
Vaught, R. C.
Walters, A. J.
Weaver, W. J., Jr.
West, W. G.
Wilcox, H. A.
Winter, J. D., Jr.
Whitemore, A. C.
Griffith, A. R., *Vet.*

HEADQUARTERS & HEADQUARTERS TROOP, 156th CAVALRY BRIGADE

Unit Instructor

COLONEL
Tompkins, D. D., San Antonio, Tex.

LT. COLONEL
Rhodes, H. B.

CAPTAINS
Hansey, J. J.
Hurt, R. Z.
Kelso, W.

1ST LIEUTENANTS
Phillips, D. E.
Wetzler, L.

CAPTAIN
Arnold, T. H.

1ST LIEUTENANT
Hall, A. W.

HEADQUARTERS, 311th CAVALRY

COLONEL
Harrah, C. S.

LT. COLONEL
Bartlett, H. W.

MAJOR
Williams, J. P.

CAPTAINS
Eckel, H.
Loch, J. F.

1ST LIEUTENANT
Sorrels, W. T.

HEADQUARTERS TROOP

CAPTAIN
Worth, F. S.

1ST LIEUTENANTS
Gordon, L. F.
Simons, H. D.

2ND LIEUTENANT
Wright, D. E.

1st SQUADRON

MAJOR
Reilly, B. J.

1ST LIEUTENANTS
Halff, M. H.
Sprague, C. T.

TROOP A

CAPTAIN
GaJeske, E. A.

1ST LIEUTENANTS
Cox, D. H.
Jones, G. B.
Peden, A. G.

2ND LIEUTENANTS
Middlebrook, E. W.
Smith, T. L.
Wilder, R. G.

TROOP B

CAPTAIN
Freeman, C. S.

1ST LIEUTENANTS
Barry, R. M.
Bell, J. B.
Couhig, J. H.

2ND LIEUTENANTS
Thompson, T. B.
Welsh, R. M.
Yarborough, J. M.

2nd SQUADRON

MAJOR
Hastings, V.

1ST LIEUTENANT
Basila, B. F.

2ND LIEUTENANT
Johnson, S. C.

TROOP E

CAPTAIN
Groff, A. E.

1ST LIEUTENANTS
Bateman, H. A.
Heartsill, C. E.
Link, E. W.

2ND LIEUTENANTS
Coward, C. R.
Fox, J. F.
Read, N. B.

TROOP F

1ST LIEUTENANTS
Baker, S.
Greenstreet, W. H.

2ND LIEUTENANTS
Biggs, J.
Peters, P.
Silcott, J., Jr.
Steinman, F. C.
Thompson, H. E.

3rd SQUADRON

MAJOR
Carson, R. J.

1ST LIEUTENANT
Erwin, R. L.

2ND LIEUTENANT
Irvin, H. I.

TROOP I

CAPTAIN
Westbrook, S. A.

1ST LIEUTENANTS
Fiscel, L. O.
Gibbings, F. T.
Golasinski, L. B.

2ND LIEUTENANTS
Bruce, C. F.
Dunseath, J. E.
Kuder, M. S.

TROOP K

1ST LIEUTENANTS
Hill, M. M.
Stapp, J. B.
Towne, M. G.

2ND LIEUTENANTS
Daniels, J. G.
Davies, W. W.
Defty, H. W.
Evans, W. A.

M. G. TROOP

CAPTAIN
Roper, G. M.

1ST LIEUTENANTS
Campbell, C. V.
Yongs, C.
Adams, H. B.

2ND LIEUTENANTS
Campbell, H. V.
Hamilton, H. C.
Schuessler, N. G.

OFFICERS ATTACHED

LT. COLONEL
White, R. D.

2ND LIEUTENANTS
Andreas, E. H., Jr.
Ball, E. M.
Barr, F. E.
Bearden, W. W.
Bell, J. P.
Benz, M.
Bond, G. A.
Boyd, J. G.
Bradford, R. M.
Brummett, J. R.
Buescher, V. A.
Cassady, J. T.
Christian, J. P.
Coker, E. C.
Connally, J. T.
Cox, D. C.
Crotty, J. W.
Crozier, P. F.
Dabney, W. C.
Darby, J. W.
David, W. L.
Davis, G. W.
DeWolf, H. G., Jr.
Dockum, R. S.
Duke, D. L.
Dunlap, L. B.
Easley, G. C.
Elder, T. J.
Ernst, H.
Fichtner, C. W.
Finley, M.
Fruin, C. E.
Gilmore, S. C.
Golasinski, A. A.
Greven, P. J.
Grove, S. E.
Hardeastle, R. D.
Hardy, W. T.
Hawley, J. L.
Heise, W. C.
Herring, C. W.
Horn, H. E.
Hovey, L. M.
Huffman, G. G.
Hunziker, E. P.
Jarratt, F. E.
Jenny, F. E.
Keeton, H. H.
Ketterson, J. M.
Knapp, A. B.
Knipe, T.
Lentz, C.
Lentz, D. C.
Lewis, W. M.
Losee, F. B.
McAlpine, R. L.
McBride, G. C.
McNatt, S. R.
Mainer, N.
Mann, D. T.
Manzo, E. T.
Morris, W. B.
Nemeck, F. L.
O'Bannon, F. B.
Parten, L. W.
Preston, G. H.
Reed, P. M.
Rumfelt, H. F. C.
Rupkey, H. L.
Saenger, A. O.
Sanders, E. E.
Schultz, W. K.
Shaw, C. W.
Siemers, H. R.
Simank, K. E.
Smith, L. E.
Stafford, J. D.
Swett, J. W.
Tarver, J. A.
Taylor, M. A.
Taylor, W. F.
Torn, E. R.
Van Deman, W. H.
Vandervoort, R. U.
Varner, B. C., Jr.
Voss, H. L.
Vreeland, W. M.
Walker, P. W.
Webb, W. C.
Willard, F. C.
Winslow, J. M.
Wirtz, R. S.
Wizig, A.
Wofford, H. R., Jr.
Wright, R. A., Jr.

312th CAVALRY

(All Cavalry Reserve except as otherwise indicated)

Unit Instructor

MAJOR
O'Connor, Edwin, *Cav.*
Oklahoma City, Okla.

COLONEL
Linderfelt, K. E., *Comdg.*

LT. COLONEL
Holmes, G. L., *S. Ex.*

MAJORS
Baird, R. O.
Levy, Ralph
Marx, J. N.
Montgomery, A.
Winter, J. D., *Med.*

CAPTAINS
Adams, W. J.
Arnold, J. P.
Baker, K. R.
Bradley, J. S.
DeSass, G.
Hill, E. C.
Kellner, B.
Ranck, W. A.
Starkey, E.

1ST LIEUTENANTS
Batchelor, J. J., *Med.*
Beauchamp, E. L.
Everest, R. K.
Forant, W. A.
Green, C. A.
Hurst, K. W.
Jacobson, J. W.
Jones, H. L.
Little, J. S.
McKee, R. L.
Moor, H. D., *Med.*
Parker, S. B., *Ch.*
Posz, J. A.
Purdy, C. F.
Radcliffe, W. D.
Roach, H. A.
Rule, J. E.
Scott, G. W.
Simpson, D. C.
Smith, P. G.
Sterling, S. H.
Stone, A. G.
Warner, J. P.
Wheeler, I. C.
White, P. R., *Dent.*
White, T. D.
Young, R. H.

2ND LIEUTENANTS
Allen, C. P.
Barker, R. S.
Barnes, B. C.
Blakely, R. K.
Botterill, J. R.
Burritt, E. A.
Chadsey, M. J.
Chafee, W. T.
Cheatham, W. E.
Cordell, C. E.
Cromwell, J. W.
Fletcher, J. B.
Johnson, J. A.
Kellner, S. C.
Lofland, J. L.
Marbury, P. R.
Marshall, D. S.
Mayes, C. M.
Means, H. P.
Metcalf, J. S.
Montgomery, J. S.
Redfield, W. C.
Reed, F. D.
Robinson, S. R.
Robinson W. L.
Roland, M. M.
Saxon, B. I.
Wall, A. R.
Warren, W. H.
Williams, E.
Woodfill, J. R.

Attached to Hq. & Hq. Tr.

LT. COLONEL
White, R. D.

MAJOR
Tate, T. B.

1ST LIEUTENANT
Phillips, W. W.

2ND LIEUTENANTS
Cromack, G. H.
Culberson, J. S.
Davisson, G. A., Jr.
Dudley, J. B., Jr.
Evans, H. F., Jr.
Gilchrist, F.
Gilchrist, J. B.
Haberl, C. H.
Harman, H. M.
Hays, C. E.
Hendricks, N. L.
Howell, C. H., Jr.

Kennedy, M. de K. T.
Lemon, M. R.
McKenzie, R. E., Jr.
Martin, R. W.
Middlebrook, V. E., Jr.
Morris, M. L.
Norris, P. A.
Shore, M. S.
Sperry, F. M.
Stauder, C. A., Jr.
Strapp, T. B.
Waite, H. E.

64th CAVALRY DIVISION, 428 POST OFFICE BLDG., LOUISVILLE, KY.

COLONEL
Baird, G. H., *Chief-of-Staff*
Unit Instructors

LT. COLONELS
Cheney, R. M., Louisville, Ky.
Koch, S., Lexington, Ky.

DIVISION HEADQUARTERS

LT. COLONELS
Clark, A.
Converse, P. H.
Meadows, W. H.
Walton, J. S.
Whitaker, O. C.

MAJORS
Hawkins, J. S.
Mayberry, H. C.
Lisanby, C. R.

CAPTAIN
Unthank, K. C.

HEADQUARTERS, 157th CAVALRY BRIGADE

CAPTAIN
Gable, A. J.

1ST LIEUTENANT
McCarthy, D. J.

2ND LIEUTENANT
Schade, C. E.

313th CAVALRY
Culver, Indiana

COLONEL
Rossow, R.

LT. COLONEL
Rogers, H. W.

MAJORS
Phillipp, L. S.
Priest, A. W.

CAPTAINS
Aldrich, E. T.
Boyd, B.
Coley, J. M.
Duncan, S. M.
Dundon, E. C.
Hurst, E. S.
Kah, C. L.
McCarty, M. E.
Murray, R. L.
Ringo, W. P.
Spence, R. K.
Stone, L.
Thisted, M. N.
Vaughan, W. C.
Wilson, R. E.

1ST LIEUTENANTS
Emerson, K. H.
Fenley, H. H.
Fletcher, L. W.
Geltz, C. G.
Gordon, J. F.
Hebel, L. J.
McRee, A. V., Jr.
Michl, J. P.
Moores, C. W.
Nichols, A. W.
Patterson, R. G.
Sherman, W. J.
Thomas, C. E.

2ND LIEUTENANTS
Barker, V. W.
Bone, R. O.
Brandes, C. M.
Burgard, J. W.
Buskirk, G. A.
Castleman, J. P.
Claghorn, B. B.
Cole, G. S.
Fenney, J. C., Jr.
Fritz, P. W.
Gado, A. L.
Gain, R.
Godfrey, T. B.
Graham, W. J.
Grevemeyer, W. H., III
Hanna, R. C.
Hickman, B. O.
Hilmer, H. G.
Huder, D. R.
Kemp, A. W.
Knight, N. D.
Love, W. F.
Morrow, P. E.
Neff, J.
Ormsby, H. D., Jr.
Overman, P. H.
Perry, E., Jr.
Pumphrey, S. R.
Sadler, W. H.
Schreiber, G. F., Jr.
Slaughter, S. A.
Sparks, S. R., Jr.
Stunkard, H. H., Jr.
Swain, S. F.
Vandevender, J. J.
Warren, J. F.
Wells, A. W.
Williams, C.
Williams, R.
Woodger, H. W.
Zook, J. F.

314th CAVALRY
Versailles, Ky.

MAJORS
Maury, L. A.
McComas, D. R.
McGuffey, E. M.
Osgood, H. N.
Redmon, J. A.
Wilkirson, E. P.

CAPTAINS
Adams, T. C.
Anson, C. W.
Denham, T. W.
Hansen, W. H.
Hayward, E. J.
House, T. N.
Jennings, W. A.
Jouannet, F. L.
Lawson, W. E.
Milton, J. A., Jr.
Sharp, C. L.
Tucker, L. H.

1ST LIEUTENANTS
Buskirk, J. H.
Dingledy, P. G.
Duncan, H. T.
Firestone, C. E., Jr.
Frederick, E. B.
Hall, W. W.
Heiney, J. H.
Hommeyer, P. H.
Lusk, R. A.
McMillin, A. E.
Preston, R. J.
Rowe, C. W.
Van Allen, W. D.

2ND LIEUTENANTS
Albright, C. H.
Auburn, F. A.
Cecil, H. D.
Cooper, C. D.
Crane, T. H.
Creamer, F. W.
Dalton, L. E.
Day, John
Deming, J. R.
Dickerson, H. H.
Diehl, C. E.
Earnest, C. B.
Easterling, G. R.
Eskew, E. F.
Fenton, G. L.
Gibson, G. S.
Grove, D. B.
Hewitt, E. S.
Howsare, J. M.
Hunt, C. E.
Jones, C. W.
Lagrew, E. D.
Lather, R. P.
Lautzenhiser, G. B.
Little, D. F.
Long, D. T.
Mallon, E. L.
Marsh, C. S.
Mitterholzer, J.
Moran, R. J.
Morgan, W. S.
Munsell, P. L.
Newman, J. R.
Oakes, H. K., Jr.
Prokop, J. J., Jr.
Raths, H. J.
Reynolds, R. W.
Roberts, H. G.
Shillinger, C. B.
Steinman, F. C.
Stover, W. M.
Town, C. M.
Turnbloom, H. J.
Veatch, M. T.
Vogel, F. D.
Willard, P. S.
Winsper, E. S.
Withrow, J. W.
Wolfer, W. F.
Wott, Alfred

464th ARMORED CAR SQUADRON
Columbus, O.

MAJOR
McDill, B. M.

CAPTAINS
Ferguson, R. C.
McGlothen, G. B.

1ST LIEUTENANTS
Combs, B.
Frothingham, C.
Gilbert, F. A.
Hyre, C. T.
Kump, C. S.
Rucker, E. T.
Smylie, L. M.
Spilman, R. S.

2ND LIEUTENANTS
Badgett, E. D.
Bishop, R. W.
Bower, J. R.
Brown, M. M.
Carter, W. A.
Darby, F. D.
Ebeling, J. A.
Garten, N. C
King, B. L.
Lyon, F. R., Jr.
Petranek, R. J.

HEADQUARTERS, 5th Remount Depot
Fort Thomas, Ky.

2ND LIEUTENANT
Pirnack, R. D.

HEADQUARTERS & HEADQUARTERS TROOP, 158th CAVALRY BRIGADE, Boston, Mass.

LT. COLONEL
Draper, W. P.

CAPTAIN
Hume, R. L.

1ST LIEUTENANT
McAllister, John

2ND LIEUTENANTS
Beste, D. G.
Holland, B. H.
Scherwerts, D.
Shepard, K.
Towne, E. F.

315th CAVALRY
(All Cavalry Reserve, except as otherwise indicated)
Unit Instructor

CAPTAIN
Devine, M. A., Jr., *Cav.*, Providence, R. I.

LT. COLONEL
Case, Norman S.

MAJORS
Armstrong, R. N.
Bell, L. H.
Griffith, C. H.
Hiller, F. L.
Maynard, O. J.

CAPTAINS
Andrews, H. A.
Baird, John E.
Benson, E. E.
Byron, A. F.
Hallett, M. R.
McCoubrey, W. W.
McIntosh, L. D.
McKenney, H. J.
Marks, F. W.
Meserve, G. D.
Nelson, H. N.
Nisbet, L. M.
Pevear, E. C.
Shurtleff, L. J.
Shurtleff, W. H., Jr.
Wason, G. F.

1ST LIEUTENANTS
Albee, R. S.
Ball, T. M.
Bassett, E. P.
Bogle, B.
Butler, N. A.
Connell, W. E.
Davidson, W. J.
Dockler, H. E.
Edwards, R. E.
Feeley, J. J.
Fisher, H.
Forristall, W. H.
King, P. F.
King, R. H.
Moran, J. L.
Rice, A. F.
Rochette, R. M.
Saunders, W. L.
Shea, J. J., Jr.
Spears, D. A.
Tucker, C. P.

2ND LIEUTENANTS
Baker, S. B.
Beaman, S.
Bracket, F. P.
Briggs, J. C.
Churchill, P. N.
Dennis, K. R.
Furbush, E. A.
Higgins, J. J.
Hobbs, W. C., Jr.
Howard, J. T.
Hunt, F. K.
King, C. G.
Mayo, R. B.
Merchant, J. G.
Mitchell, E. W., Jr.
Patterson, W. M.
Robinson, A. P.
Splaine, C. E.
Sullivan, J. L.
Winchester, W. P.

Attached

MAJOR
McAlpine, A. F., *Med. Res.*

1ST LIEUTENANTS
Amoroso, P.
Boardman, O. G.
Bolster, J. A., *Med. Res.*
Brown, F. A.
Connell, H. R.
Cutcliffe, J. E., Jr.
Evans, A. E.
Fitzgerald, E. J.
Fletcher, P. W.
Forbes, B.
Foley, C. F.
Fraser, C. A.
Hammond, J. C.
Harris, W. C.
Hodgkinson, W. F., Jr.
Humphreys, S. P.
Karrer, R. J.
Kimball, R. C.
Loud, E. S.
McQuade, E. J.
Maher, C. E.
Merrill, F. O., Jr.
Nottebaert, H. C.
Oliver, R. E.
Pitts, E. C., Jr.
Quirk, T. R.
Stoddard, H. R.
Sullivan, A. M.
Taber, F. M.
Tucker, E. L.
Wainwright, A. M.
White, G. W. H.
Wish, M. D.

2ND LIEUTENANTS
Albertini, P. F.
Allen, E. T.
Baker, R. S.
Bamford, T. E.
Barlow, C. F.
Barney, R. B. S.
Barstow, A. W.
Bastian, M. V., Jr.
Beetle, R. S.
Berson, A. I.
Bodfish, C. H.
Bottomly, B. E.
Bower, E. C.
Bowman, R. C.
Boyle, J. A.
Briggs, K. L.
Bullock, J. E.
Campbell, E. V.
Carleton, R. C.
Chadwick, J. S.
Chapin, G. H., Jr.
Chase, G. W.
Chase, R. W.
Clark, O. J.
Cook, C. H.
Crocker, O. W.
Davis, C. L.
Davis, D. A.
Day, W. A. P.
Edson, W. G.
Ek, A. E.
Elliott, E. B.
Evans, R. B.
Fabyan, W. W.
Fanos, A.
Farrell, J. B.
Felch, E. A.
Field, W. F.
Fisher, B. D.
Foskett, C. R.
Foster, W. H.
Fullerton, J. H.
Geary, G. K
Goldberg, E.
Goodall, L. D.
Grandy, L. M.
Gregory, L. K.
Hale, N. S.
Hill, B. W.
Hilyard, J. R.
Holder, E. D.
Howe, F. L., Jr.
Hurley, J. C.
Langford, L. E.
Lepie, J.
McGinnis, F. K., Jr.
Marcus, T.
Murphay, J. F.
Newton, G. B.
O'Byrne, W. T., Jr.
Ogden, W. G., Jr.
Paksarian, J. P.
Peirce, B. H.
Proctor, R. G.
Pubols, B. H.
Pulsifer, E. R.
Pyle, A. G.
Richardson, E. C.
Richardson, G. E.
Ricker, A. B.
Ripley, R. L., Jr.
Rogers, D. J.
Romano, R.
Salisbury, A. M.
Smith, R. F.
Smith, W. G.
Stanley, H. I.
Stickney, W. E.
Stimets, E. M.
Swift, O. B.
Tarr, R. S.
Taylor, F. W.
Tikofski, J. W.
Tufts, W. J.
Vedeler, R. G.
Waechter, P. H., Jr.
Waining, E. F.
Waite, R. F.
Weiss, R. J.
White, E. M.
White, F. T., Jr.
White, H. J.
Young, W. F., Jr.

316th CAVALRY
(All Cavalry Reserve, except as otherwise indicated)
Unit Instructor

COLONEL
Ellis, R. B., Hartford, Conn.

LT. COLONEL
Davis, J. H. K. *Comdg.*

MAJORS
Clark, H. M., Jr.
Malone, G. E.
Marinan, J. T.
Ogilby, R. B., *Ch.*
Potter, H. S.
Smith, C. S. *Med.*
Warren, J. A.

CAPTAINS
Barr, A. J.
Brainerd, J. B. Jr.
Clark, R. S.
Crampton, E. W.
Davis, A. P.
Davisson, J. E.
Gray, A. S.
Manross, F. T.
Mills, H. W.
Montgomery, E. S.
Ripley, E. B. Jr.
Steadler, C. M.
Thomas, W. D.
Whitten, H. E.

1ST LIEUTENANTS
Branniff, E. C.
Braun, C. C.
Brooks, C. H.
Cheney, J. D.
Conway, J. A.
Cutler, S.
Ellis, N. W.
Falls, W. B.
Gibson, E. W.
Haag, E. K.
Hall, L. J.
Johnson, B. P.
Johnson, R. H., *Dent.*
Kosicki, B. A.
Norris, E. E.
Otto, R. H.
Priest, C. W.
Smith, L. W.
Streeter, G. L.
Van der Wolk, W. W.
Williams, E. M.

2ND LIEUTENANTS
Adams, J. B.
Allen, R. N.
Bradley, R. J.
Bruno, R.
Case, D. V.
Colby, N. H.
Cook, F. R.
Elwell, G. H.
Flood, G. M.
Foley, J. J.
Howes, W. I.
Juckett, J. W.
Laythe, C. F.
MacDonald, J. J.
McChesney, D. L.
McGarry, R. J.
McQuade, J. W.
Phinney, W. S.
Pickup, E. A.
Rogers, R. E.
Steiger, R. R.
Turner, C. E.
Youngerman, G. W.

Attached

1ST LIEUTENANTS
Babcock, J. S.
Beerman, M.
Brush, G. K., Jr.
Holsten, W. L.
Jones, Geo. H.
Lane, E. F.
Moulton, F. V.
O'Donnell, R. T.
Peyton, B. W.
Sargent, E. H.
Taylor, A. H.
Wallace, S. E.
Waterhouse, R. E.

2ND LIEUTENANTS
Aimi, Dante
Bancroft, C. C.
Batchelder, C. B.
Bernardini, J. A.
Black, H. F.
Brady, A. A.
Brown, G. W.
Brown, S. M.
Bugbee, M. L.
Bullock, J. F.
Caron, B. W.
Carpenter, E. R.
Carr, M. F.
Chase, F. S.
Clement, H. R.
Crowley, Francis J.
Crowley, Frank J.
Daley, G. L.
Denison, J. A.
Dye, E. J.
Eaton, R. A.
Elie, A. N.
Fiske, O. E.
Fox, R. L.
Fuller, R. D.
Fuller, R. H.
Gale, H. E.
Holman, C. R.
House, A. W.
Hutchinson, F. W.
Isham, P. D.
Jackson, J. A.
Kennedy, T. C.
Lang, G. S.
Lincoln, S. A.
MacKay, H. M.
Mahan, C. A.
Marcoullier, E. J.
Mazuzan, G. I.
McCusker, J. D.
McMahon, C. C.
Menard, G. L.
Moody, E. W.
Molinari, P. L.
Morse, L. L.
Moulton, B. H.
Nelson, T. R.
Nitkewicz, P.
Northrup, J. H.
O'Rourke, J. P.
Patten, C. L.
Philip, G. R., Jr.
Pierce, G. A.
Plumley, F. D. P.
Rice, C. C.
Ring, W. P., Jr.
Robbins, E. M.
Robson, G. R.
Ross, E.
Scammell, D. W., Jr.
Sellew, T. H.
Smith, W. F.
Stevens, E. L.
Stufflebeam, W. H.
Suher, M.
Walsh, J. T.
White, E. R.
Whitney, C. E.
Wiggin, A. T.
Winch, S. G.
Wirtz, F. C.
Woodbury, J. S.
Woodward, R. J.
Woodworth, A. H.
Yarrington, H. S.